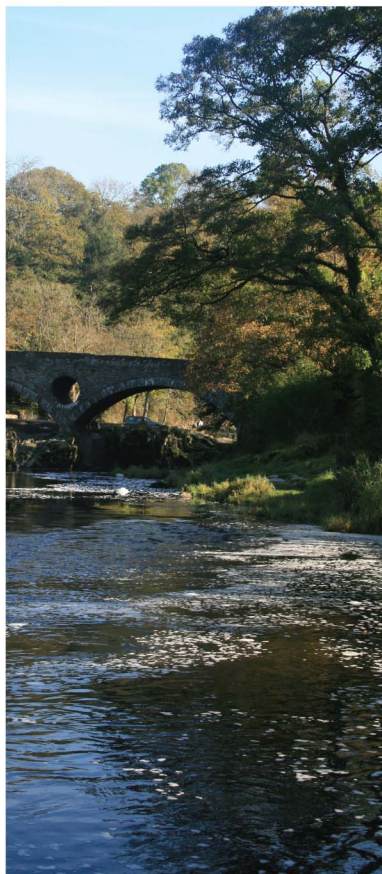


Carmarthenshire Local Development Plan

HABITATS REGULATIONS ASSESSMENT (HRA) VOLUME 3: APPENDICES

JACOBS™



**November
2014**

Cyngor Sir Gâr
Carmarthenshire
County Council



Carmarthenshire County Council

Local Development Plan

Habitats Regulations Assessment

Volume 3: Appendices

November 2014

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DATE		Document status		

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Appendix A Citations and Standard Data Forms

The citations and standard data forms have been taken from the Joint Nature Conservation Committee website www.jncc.gov.uk

Caeau Mynydd Mawr SAC

Site details



Location of Caeau Mynydd Mawr SAC/SCI/cSAC

Country	Wales
Unitary Authority	Caerfyrddin/ Carmarthenshire
Centroid*	SN575121
Latitude	51 47 21 N
Longitude	04 03 57 W
SAC EU code	UK0030105
Status	Designated Special Area of Conservation (SAC)
Area (ha)	25.06

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Heath. Scrub. Maquis and garrigue. Phygrana (7%)

Dry grassland. Steppes (3%)

Humid grassland. Mesophile grassland (90%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

6410 [Molinia meadows on calcareous, peaty or clayey-silt-laden soils \(*Molinion caeruleae*\)](#)

Annex II species that are a primary reason for selection of this site

1065 [Marsh fritillary butterfly](#) *Euphydryas* (*Eurodryas*, *Hypodryas*) *aurinia*

Marsh fritillaries *Euphydryas aurinia* occur over a wide area of traditionally-managed purple moor-grass *Molinia caerulea* pastures in south-east Carmarthenshire. The extent of suitable habitat, contained within more than 30 enclosures at Caeau Mynydd Mawr, suggests that this is one of the largest metapopulations in Wales.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200012
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude	latitude
04 03 57 W	51 47 21 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Northern Atlantic wet heaths with <i>Erica tetralix</i>	2.68	D			

<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	10.97	C	C	B	C
------------------------------------------------------------------------------------------------------	-------	---	---	---	---

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Euphryas</i> (<i>Eurodryas</i> , <i>Hypodryas</i>) <i>aurinia</i>	Present	-	-	-	C	B	C	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	7.0
Dry grassland. Steppes	3.0
Humid grassland. Mesophile grassland	90.0
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Neutral, Nutrient-poor, Sedimentary

Geomorphology & landscape:

Lowland

4.2 Quality and importance

Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)

- for which the area is considered to support a significant presence.

Euphryas (*Eurodryas*, *Hypodryas*) *aurinia*

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

Part of the site is owned by Butterfly Conservation, and Section 15 agreements cover ca. 66% of the site, so the features are protected over that area.

Parts of the site could be at risk from future industrial/residential development and part of the site is subject to increasing agricultural pressure. CCW is in discussion with the owners of the unprotected parts of the site and hopes to conclude management agreements.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC

Site details



Location of Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC/SCI/cSAC

Country	Wales
Unitary Authority	Abertawe/ Swansea; Caerfyrddin/ Carmarthenshire; Penfro/ Pembrokeshire
Centroid*	SS357991
Latitude	51 40 00 N
Longitude	04 22 35 W
SAC EU code	UK0020020
Status	Designated Special Area of Conservation (SAC)
Area (ha)	66101.16

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Marine areas. Sea inlets (82.1%)
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (13.7%)
Salt marshes. Salt pastures. Salt steppes (4.1%)
Shingle. Sea cliffs. Islets (0.1%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

1110 Sandbanks which are slightly covered by sea water all the time

Carmarthen Bay and Estuaries on the south coast of Wales includes the sandbank of Helwick Bank, a linear shallow subtidal sandbank that is unusual in being highly exposed to wave and tidal action. The animal communities found in and on the bank reflect these conditions, being tolerant of high levels of disturbance. Within Carmarthen Bay there are also several other smaller sandbanks in relatively shallow waters, which support a range of species (including bivalves, amphipods and worms), many of which spend most of their time wholly or partly buried in the sediment.

1130 Estuaries

Carmarthen Bay and Estuaries provides an example of a large estuarine site on the south coast of Wales, encompassing the **estuaries** of the Rivers Loughor, Tâf and Tywi (coastal plain estuaries) and the Gwendraeth (a bar-built estuary). These four estuaries form a single functional unit around the Burry Inlet, with important interchanges of sediment and biota. The estuaries of this site support a range of subtidal and intertidal sediments that grade from sand at the mouth to mudflats in the upper estuary. The fauna of the sediments varies, but includes communities with polychaete and oligochaete worms and areas with extensive cockle beds and other bivalve molluscs. This site has a range of undisturbed transitions to coastal habitats.

1140 Mudflats and sandflats not covered by seawater at low tide

Carmarthen Bay and Estuaries on the south coast of Wales includes extensive areas of intertidal **mudflats and sandflats**. Large areas of these intertidal flats are dominated by bivalves. In areas of fine sand cockles *Cerastoderma edule* are abundant, along with other bivalves, amphipods and worms. In muddier sediments the sand-gaper *Mya arenaria*, peppery furrow-shell *Scrobicularia plana* and mud-snail *Hydrobia ulvae* are also found in large numbers. The lower Loughor Estuary is one of the few places in the UK where the worm *Ophelia bicornis* has been found. There are also beds of the nationally scarce dwarf eelgrass *Zostera noltei*.

1160 Large shallow inlets and bays

Carmarthen Bay, off the south Wales coast is an extensive shallow bay. Throughout the bay physical conditions vary considerably. Salinity varies from low (at the estuaries) to fully marine, there are gradients in wave action from sheltered to exposed, and strong tides sweep exposed headlands whilst other areas are sheltered from currents. There is a wide range of seabed types, including mud, sand and rock, although the majority of the seabed is sandy. The sediment supports a large number of species, including bivalve molluscs, worms, burrowing urchins, brittlestars and sand-stars.

1310 Salicornia and other annuals colonising mud and sand

Carmarthen Bay and Estuaries in south Wales is selected as representative of pioneer glasswort *Salicornia* spp. saltmarsh in the south-west of the UK. It forms an integral part of the estuarine system, supporting extensive pioneer communities and contributing to a complete sequence of saltmarsh vegetation, including transitions to upper saltmeadow and to important sand dune habitats.

1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritima*)

This extensive site in south Wales has a complete sequence of saltmarsh vegetation, from pioneer vegetation through to upper saltmarsh transitions. The grazed saltmarshes include upper margins with sea rush *Juncus maritimus* and marsh-mallow *Althaea officinalis*, which are a particularly distinctive ecological feature of this site. The area is also important for transitions from saltmarsh to sand dune and other habitats.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

1103 [Twaite shad](#) *Alosa fallax*

Twaite shad *Alosa fallax* migrate through the waters of Carmarthen Bay and Estuaries cSAC to reach spawning sites in the Afon Tywi. The Taf-Tywi-Gwendraeth estuary is also an important nursery area for juveniles and it is likely that twaite shad feed in the inshore waters of Carmarthen Bay.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1095 [Sea lamprey](#) *Petromyzon marinus*

1099 [River lamprey](#) *Lampetra fluviatilis*

1102 [Allis shad](#) *Alosa alosa*

1355 [Otter](#) *Lutra lutra*

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type **1.2 Site code**

1.3 Compilation date **1.4 Update**

1.5 Relationship with other Natura 2000 sites

U	K	9	0	1	4	0	9	1
U	K	9	0	1	5	0	1	1

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199601
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude	latitude
04 22 35 W	51 40 00 N

2.2 Site area (ha) **2.3 Site length (km)**

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	12.29%
0	Marine	81.10%
UK924	West Glamorgan	6.57%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Sandbanks which are slightly covered by sea water all the time	30.04	B	C	B	B
Estuaries	14.02	A	B	A	A
Mudflats and sandflats not covered by seawater at low tide	11.02	B	B	A	B
Coastal lagoons	0	D			
Large shallow inlets and bays	66.1	B	B	B	B
<i>Salicornia</i> and other annuals colonising mud and sand	0.1	A	B	A	A
<i>Spartina</i> swards (<i>Spartinion maritimae</i>)	0.5	D			
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	4.1	A	B	A	A
Dunes with <i>Hippophae rhamnoides</i>	0.02	D			
Submerged or partially submerged sea caves	0	D			

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Petromyzon marinus</i>	Common	-	-	-	C	C	C	C
<i>Lampetra fluviatilis</i>	Common	-	-	-	C	C	C	C
<i>Alosa alosa</i>	Rare	-	-	-	C	C	C	C
<i>Alosa fallax</i>	>10,000	-	-	-	A	B	C	A
<i>Rhinolophus hipposideros</i>	Present	-	-	-	D			
<i>Rhinolophus ferrumequinum</i>	Present	-	-	-	D			
<i>Lutra lutra</i>	Present	-	-	-	C	B	C	C
<i>Halichoerus grypus</i>	Present	-	-	-	D			

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	82.1
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	13.7
Salt marshes. Salt pastures. Salt steppes	4.1
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	0.1
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	

Habitat classes	% cover
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Alluvium, Biogenic reef, Boulder, Clay, Cobble, Gravel, Limestone/chalk, Mud, Peat, Pebble, Sand, Sandstone/mudstone, Sedimentary, Shingle, Slate/shale

Geomorphology & landscape:

Cave/tunnel, Cliffs, Coastal, Enclosed coast (including embayment), Estuary, Intertidal rock, Intertidal sediments (including sandflat/mudflat), Islands, Lagoon, Open coast (including bay), Pools, Subtidal rock (including rocky reefs), Subtidal sediments (including sandbank/mudbank)

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 Vulnerability

Carmarthen Bay is both a fisheries resource and important nursery ground. Developments in fishing practices and target species could threaten the integrity of both the benthic communities and the sea-duck population (for which the Bay is also proposed as an SPA). Most of the potential threats come from fisheries and related activities such as shellfish management and access issues related to mussel and cockle gathering.

However two groups exist which discuss these issues: a group of statutory agencies and voluntary organisations, and the more recent cSAC relevant authorities group. CCW maintains close liaison in particular with the South Wales Sea Fisheries Committee.

CCW is liaising with the relevant local authority over the Millennium Coastal Park near Llanelli.

CCW is consulted over applications to dredge aggregate from Helwick Bank. These works may have an effect locally on the biology of the Bank, and in conjunction with other coastal defence works may also affect sediment budgets and characteristics over a wider area. CCW has encouraged extensive monitoring and further research.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	1.0
UK00 (N/A)	77.9
UK04 (SSSI/ASSI)	22.1

Carmarthen Bay Dunes/ Twyni Bae Caerfyrddin SAC

Site details



Location of Carmarthen Bay Dunes/ Twyni Bae Caerfyrddin SAC/SCI/cSAC

Country	Wales
Unitary Authority	Abertawe/ Swansea; Caerfyrddin/ Carmarthenshire
Centroid*	SN285074
Latitude	51 44 21 N
Longitude	04 28 58 W
SAC EU code	UK0020019
Status	Designated Special Area of Conservation (SAC)
Area (ha)	1206.32

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Coastal sand dunes. Sand beaches. Machair (90%)
Inland water bodies (standing water, running water) (1%)
Bogs. Marshes. Water fringed vegetation. Fens (4%)
Broad-leaved deciduous woodland (5%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

2110 [Embryonic shifting dunes](#)

The three Carmarthen Bay Dunes sites within the Burry Inlet provide a representative example of **Embryonic shifting dunes** in south Wales. They support areas of **Embryonic shifting dune** in which sand couch *Elytrigia juncea* is the dominant sand-binding species. There are well-developed transitions to marram *Ammophila arenaria* dunes.

2120 [Shifting dunes along the shoreline with *Ammophila arenaria* \('white dunes'\)](#)

Carmarthen Bay Dunes is representative of mobile dunes in south Wales and contains a very large area of **shifting dunes along the shoreline**, covering approximately 80 ha in total. In parts of the system (e.g. at Whiteford Burrows) dunes are actively accreting and there are clear zonations of embryonic dunes, shifting dunes and semi-fixed dunes. Uncommon species recorded within the shifting dunes include sea spurge *Euphorbia paralias*.

2130 [Fixed dunes with herbaceous vegetation \('grey dunes'\)](#) * Priority feature

Important dune systems with actively-forming spits and well-conserved structure and function occur within the Carmarthen Bay Dunes complex at Whiteford, Pembrey Coast and Laugharne and Pendine Burrows. The vegetation includes extensive areas of **fixed dune** grassland with red fescue *Festuca rubra* and lady's bedstraw *Galium verum* and semi-fixed dune grassland with marram *Ammophila arenaria* and red fescue.

2170 [Dunes with *Salix repens* ssp. *argentea* \(*Salicion arenariae*\)](#)

Carmarthen Bay Dunes is representative of **dunes with *Salix repens* ssp. *argentea*** in the south Wales part of its range. Three dune systems associated with the Burry Inlet – Whiteford and Pembrey Dunes, Laugharne and Pendine Burrows – contain examples of the habitat type, part of a range of dune habitats on the site.

2190 [Humid dune slacks](#)

In total this site includes almost 100 ha of **Humid dune slack**, representing the largest area in Wales. Many of these dune slacks are very rich in species, including the rare Annex II species **1903 Fen orchid *Liparis loeselii***. A number of successional stages are present, ranging from embryonic to fully mature slacks, and the area is also notable for its interesting dune slack – saltmarsh transitions.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

1014 [Narrow-mouthed whorl snail](#) *Vertigo angustior*

Carmarthen Bay Dunes represents **narrow-mouthed whorl snail *Vertigo angustior*** in south Wales. Whiteford Burrows contains by far the largest known population of this snail in the UK. The snail occurs at this site in areas of freshwater seepage at the junction between sand dune and saltmarsh habitat, where horse grazing maintains the open conditions this species requires.

1395 [Petalwort](#) *Petalophyllum ralfsii*

Carmarthen Bay Dunes is one of two sites selected for **petalwort *Petalophyllum ralfsii*** in south Wales. Whiteford Burrows is included in this site and has a large population of the liverwort. Some of the largest and least-disturbed calcareous dune slack systems in the UK occur in this area, a high proportion of which are very open in character.

1903 [Fen orchid](#) *Liparis loeselii*

Whiteford Burrows, on the Burry Inlet, south Wales, is one of the few sites in the west where **fen orchid *Liparis loeselii*** is still known to occur. Populations are somewhat smaller in size than those at Kenfig

but nevertheless the site supports over 10% of the UK resource. The variety that occurs here, as at Kenfig, is var. *ovata*, which is currently known to occur only in Wales and on the coast of Brittany, as well as in the past at Braunton Burrows, Devon, England. The fen orchid on this site is var. *ovata*.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199506
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude	latitude
04 28 58 W	51 44 21 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	89.76%
UK924	West Glamorgan	10.23%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Embryonic shifting dunes	1.6	A	B	A	A

Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	7.1	A	B	A	A
Fixed dunes with herbaceous vegetation ("grey dunes")	44.3	A	B	A	A
Dunes with <i>Hippophae rhamnoides</i>	10.1	D			
Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)	3.7	A	B	A	A
Humid dune slacks	8.1	B	B	A	B
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	2.7	D			

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Vertigo angustior</i>	Present	-	-	-	A	A	A	A
<i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>	Present	-	-	-	D			
<i>Rhinolophus hipposideros</i>	Present	-	-	-	D			
<i>Rhinolophus ferrumequinum</i>	Present	-	-	-	D			
<i>Petalophyllum ralfsii</i>	Present	-	-	-	B	B	C	B
<i>Liparis loeselii</i>	51-100	-	-	-	A	A	A	A

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	90.0
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	1.0
Bogs. Marshes. Water fringed vegetation. Fens	4.0
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	5.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Limestone, Sand, Sedimentary

Geomorphology & landscape:

Coastal

4.2 Quality and importance

Embryonic shifting dunes

- which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares.
- for which this is considered to be one of the best areas in the United Kingdom.

Shifting dunes along the shoreline with *Ammophila arenaria* (“white dunes”)

- for which this is considered to be one of the best areas in the United Kingdom.

Fixed dunes with herbaceous vegetation (“grey dunes”)

- for which this is considered to be one of the best areas in the United Kingdom.

Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*)

- which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares.
- for which this is considered to be one of the best areas in the United Kingdom.

Humid dune slacks

- for which this is considered to be one of the best areas in the United Kingdom.

Vertigo angustior

- for which this is considered to be one of the best areas in the United Kingdom.

Petalophyllum ralfsii

- for which this is considered to be one of the best areas in the United Kingdom.

Liparis loeselii

- for which this is one of only three known outstanding localities in the United Kingdom.
- which is known from 15 or fewer 10 x 10 km squares in the United Kingdom.

4.3 Vulnerability

Substantial areas of open dunes are threatened by *Hippophae* encroachment, while the damp slacks are similarly under pressure from *Salix repens*; these threats are detrimental to species of early successional stages such as *Liparis loeselii* and *Petalophyllum ralfsii*. Management has been undertaken to address these problems by CCW and the local authority (at Whiteford NNR and Pembrey LNR), but significant areas are still subject to change.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	8.6
UK04 (SSSI/ASSI)	100.0

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	200306
date site designated as SAC	

2. Site location:

2.1 Site centre location

longitude	latitude
04 29 11 W	51 38 48 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	0.13%
0	Marine	99.87%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

Code	Species name	Population			Site assessment			
		Resident	Migratory		Population	Conservation	Isolation	Global
Breed	Winter	Stage						
A065	<i>Melanitta nigra</i>		16946	I	C		C	

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	100.0
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Gravel, Mud, Sand, Sedimentary

Geomorphology & landscape:

Enclosed coast (including embayment), Estuary, Open coast (including bay), Subtidal rock (including rocky reefs), Subtidal sediments (including sandbank/mudbank)

4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (79/409/EEC)

Over winter the area regularly supports:

Melanitta nigra

(Western Siberia/Western & Northern Europe/North-western Africa)

1.0% of the population

5 year peak mean 1997/98 - 2001/02

4.3 Vulnerability

Carmarthen Bay is both a fisheries resource and important fish nursery ground. Developments / changes in fishing practices, targeting new species and/or increases in fisheries effort could threaten the integrity of both the sea-duck population and the benthic communities on which the population depends for food. CCW maintains close liaison with fisheries managers, primarily the South Wales Sea Fisheries Committee, regarding fisheries development and management.

Major oil pollution incidents in the vicinity of the site have impacted the scoter population in the past and, despite improvements in shipping management, pollution response and contingency planning, hydrocarbon pollution remain a risk to the sea-duck feature. Continuing improvements in shipping management, especially at the major oil-port of Milford Haven, management of the wider environment of the Carmarthen Bay & Estuaries and nearby Pembrokeshire Marine cSACs, together with CCW's close involvement in the formulation of marine pollution contingency plans should help to further reduce the likelihood and impact of pollution incidents at sea.

Sea-surface or aerial activity creating significant disturbance of feeding and/or resting scoter flocks would adversely affect the population by stimulating additional energy expenditure. Significant increases in recreational, commercial or military water-surface or aerial activities during winter months, and during late summer, when moulting birds are particularly vulnerable, could result in such risk.

Major infrastructure developments, such as for offshore energy generation, would generate a significant risk of disturbance during both construction and operation if sited inappropriately. CCW has been working with members of the offshore wind energy industry to collect data on numbers and distribution of scoter in areas where development is being focused. CCW will continue to promote this partnership approach as the offshore energy industry expands, hopefully ensuring that future development needs can be balanced with the avoidance of any significant impact on scoter populations.

Significant changes to the sediment structures or sediment transport regime in the Bay could indirectly threaten the integrity of the scoter population through impacts to benthic communities containing the birds' food source. Management of seabed aggregate exploitation is being enhanced, with zoning of the exploitation to avoid sensitive areas of nature conservation importance, and CCW is consulted over applications to dredge aggregates. CCW also encourages extensive monitoring and further research to determine impacts of aggregate extraction. Current harbour maintenance regimes are considered unlikely to have significant impact on sediment processes; however, major changes to harbour infrastructure and consequential maintenance regimes would need to be carefully considered in terms of their impacts on sediment processes.

The integrity of the scoter population using Carmarthen Bay is also vulnerable to risk factors outside the site, for example at breeding grounds, and broad-scale factors such as long-term climatic change.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK00 (N/A)	95.8
UK04 (SSSI/ASSI)	4.2

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

U	K	0	0	2	0	0	1	9
U	K	0	0	2	0	0	2	0

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	199207
date site designated as SAC	

2. Site location:

2.1 Site centre location

longitude	latitude
04 10 37 W	51 38 55 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	32.56%
0	Marine	4.97%
UK924	West Glamorgan	62.48%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

Code	Species name	Population			Site assessment				
		Resident	Migratory		Population	Conservation	Isolation	Global	
			Breed	Winter					Stage
A054	<i>Anas acuta</i>		1772	I		B		C	
A056	<i>Anas clypeata</i>		356	I		B		C	
A052	<i>Anas crecca</i>		433	I		C		C	
A050	<i>Anas penelope</i>		1797	I		C		C	
A149	<i>Calidris alpina alpina</i>		6242	I		C		C	
A143	<i>Calidris canutus</i>		2153	I		C		C	
A130	<i>Haematopus ostralegus</i>		13590	I		B		C	
A160	<i>Numenius arquata</i>		1234	I		C		C	
A141	<i>Pluvialis squatarola</i>		329	I		C		C	
A048	<i>Tadorna tadorna</i>		968	I		C		C	
A162	<i>Tringa totanus</i>		616	I		C		C	

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	65.0
Salt marshes. Salt pastures. Salt steppes	32.4
Coastal sand dunes. Sand beaches. Machair	2.3
Shingle. Sea cliffs. Islets	0.2
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	0.1
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Boulder, Clay, Cobble, Gravel, Limestone, Mud, Nutrient-rich, Peat, Pebble, Quartzite, Sand, Sandstone, Sandstone/mudstone, Sedimentary, Shingle, Slate/shale

Geomorphology & landscape:

Coastal, Enclosed coast (including embayment), Estuary, Intertidal rock, Intertidal sediments (including sandflat/mudflat), Lowland, Open coast (including bay), Ria

4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (79/409/EEC)

Over winter the area regularly supports:

<i>Anas acuta</i> (North-western Europe)	3% of the population 5 year peak mean 1991/92-1995/96
<i>Anas clypeata</i> (North-western/Central Europe)	3.6% of the population in Great Britain 5 year peak mean 1991/92-1995/96
<i>Anas crecca</i> (North-western Europe)	0.3% of the population in Great Britain 5 year peak mean 1991/92-1995/96
<i>Anas penelope</i> (Western Siberia/North-western/North-eastern Europe)	0.6% of the population in Great Britain 5 year peak mean 1991/92-1995/96
<i>Calidris alpina alpina</i> (Northern Siberia/Europe/Western Africa)	1.2% of the population in Great Britain 5 year peak mean 1991/92-1995/96
<i>Calidris canutus</i> (North-eastern Canada/Greenland/Iceland/North-western Europe)	0.6% of the population 5 year peak mean 1991/92-1995/96
<i>Haematopus ostralegus</i> (Europe & Northern/Western Africa)	1.6% of the population 5 year peak mean 1991/92-1995/96
<i>Numenius arquata</i> (Europe - breeding)	1.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96
<i>Pluvialis squatarola</i> (Eastern Atlantic - wintering)	0.8% of the population in Great Britain 5 year peak mean 1991/92-1995/96
<i>Tadorna tadorna</i> (North-western Europe)	1.3% of the population in Great Britain 5 year peak mean 1991/92-1995/96
<i>Tringa totanus</i> (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 30/06/1999)

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 Vulnerability

In 1991, statutory agencies and voluntary organisations involved in the estuary established a liaison group with the aim of resolving the needs of conservation, public enjoyment and commercial interests, through information sharing, liaison and consultation. The liaison group organised the second Burry Inlet and Loughor Estuary Symposium (State of the Estuary Report) in March 1995, which identified and documented the changes which had taken place in and around the Burry Inlet and Loughor Estuary since the first Symposium in 1976. Following the submission of the Burry Inlet and Loughor Estuary as a candidate Special Area of Conservation, the original liaison group has been replaced by a Relevant Authorities Management Group which will progress a management scheme for the site.

Through the mechanism of this group, the Countryside Council for Wales (CCW) consults with the South Wales Sea Fisheries Committee over shellfish activities such as management and access, as well as the Environment Agency over eutrophication issues. In conjunction with the Royal Society for the Protection of Birds, CCW has also monitored and is currently reviewing saltmarsh grazing levels on the south side of the estuary. There is close liaison with relevant authority with regard to the proposed Millennium Coastal Park Project on the north shore in terms of tourism, amenity and recreation activities.

Most recently, there has been a hydro-electric barrage scheme proposed across the mouth of the Burry Inlet. This scheme is not yet at the planning application stage and CCW is currently holding a watching brief over progress on this proposal.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	11.6
UK04 (SSSI/ASSI)	99.9

Information Sheet on Ramsar Wetlands (RIS)

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

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

Email: RIS@JNCC.gov.uk

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DD MM YY

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Designation date

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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:

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.

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
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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) (www.metoffice.com/climate/uk/averages/19712000/sites/tenby.html) 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)
Species with peak counts in winter:	
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

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- 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
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Cardigan Bay/ Bae Ceredigion SAC

Site details



Location of Cardigan Bay/ Bae Ceredigion SAC/SCI/cSAC

Country	Wales
Unitary Authority	Ceredigion; Penfro/ Pembrokeshire
Centroid*	SN214641
Latitude	52 14 47 N
Longitude	04 37 02 W
SAC EU code	UK0012712
Status	Designated Special Area of Conservation (SAC)
Area (ha)	95860.36

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Marine areas. Sea inlets (99.5%)
Coastal sand dunes. Sand beaches. Machair (0.01%)
Shingle. Sea cliffs. Islets (0.39%)
Inland water bodies (standing water, running water) (0.01%)
Heath. Scrub. Maquis and garrigue. Phygrana (0.07%)
Broad-leaved deciduous woodland (0.02%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

1110 [Sandbanks which are slightly covered by sea water all the time](#)

1170 [Reefs](#)

8330 [Submerged or partially submerged sea caves](#)

Annex II species that are a primary reason for selection of this site

1349 [Bottlenose dolphin](#) *Tursiops truncatus*

The **bottlenose dolphin** *Tursiops truncatus* population of Cardigan Bay off the west coast of Wales has been estimated to consist of around 125 individuals. The dolphins appear to use the inshore waters of Cardigan Bay for both feeding and reproduction, and in the summer months calves and juveniles are often observed with adult individuals or groups.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1095 [Sea lamprey](#) *Petromyzon marinus*

1099 [River lamprey](#) *Lampetra fluviatilis*

1364 [Grey seal](#) *Halichoerus grypus*

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199601
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
04 37 02 W	52 14 47 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	0.82%
0	Marine	99.18%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Sandbanks which are slightly covered by sea water all the time	15.96	C	C	B	C
Mudflats and sandflats not covered by seawater at low tide	0.16	D			
Reefs	23.94	C	B	B	C
Submerged or partially submerged sea caves	0.1	B	C	B	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Petromyzon marinus</i>	Present	-	-	-	C	C	C	C
<i>Lampetra fluviatilis</i>	Present	-	-	-	C	C	C	C
<i>Alosa alosa</i>	Present	-	-	-	D			
<i>Alosa fallax</i>	Present	-	-	-	D			
<i>Tursiops truncatus</i>	101-250	-	-	-	A	B	C	A
<i>Phocoena phocoena</i>	Present	-	-	-	D			
<i>Halichoerus grypus</i>	Present	-	-	-	C	B	C	C

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	99.5
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	0.0
Shingle. Sea cliffs. Islets	0.4
Inland water bodies (standing water, running water)	0.0
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	0.1
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	0.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Biogenic reef, Boulder, Clay, Cobble, Gravel, Metamorphic, Mud, Pebble, Sand, Sandstone/mudstone, Sedimentary, Shingle, Slate/shale

Geomorphology & landscape:

Cave/tunnel, Cliffs, Intertidal rock, Intertidal sediments (including sandflat/mudflat), Islands, Open coast (including bay), Pools, Subtidal rock (including rocky reefs), Subtidal sediments (including sandbank/mudbank), Surge gullies

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time

- for which the area is considered to support a significant presence.

Reefs

- for which the area is considered to support a significant presence.

Submerged or partially submerged sea caves

- for which the area is considered to support a significant presence.

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.

Tursiops truncatus

- for which this is one of only two known outstanding localities in the United Kingdom.

Halichoerus grypus

- for which the area is considered to support a significant presence.

4.3 Vulnerability

Bottlenose dolphins, porpoise and seals are vulnerable to disturbance from seismic survey for oil and gas, and ecotourism and sea-based recreational activities.

CCW is liaising with Ceredigion County Council and other interested parties to try and ensure sustainable tourism by improving codes of conduct and improving awareness. Environmental contaminants, particularly mercury and PCBs, are a concern being addressed by studies on potential dolphin and porpoise prey species.

There are concerns about the potential for an increase in marine mammal entanglement in fishing nets and marine debris, the reduction or prey species and damage caused to seabed habitats by mobile fishing gear. The site's relevant authorities are considering these issues in the development of a management plan. An Interreg project is addressing the problem of marine litter in the southern Irish Sea.

Dolphins, porpoises and seals are vulnerable to military testing or ordnance that occurs within the site. CCW and the Defence Evaluation and Research Agency are jointly developing a means to detect the presence of marine mammals in areas of risk prior to tests.

There are many small harbour-dredging projects in the bay. The potential for the disposal of spoil from these projects to affect seabed habitats and marine mammals is being addressed through liaison between CCW, local councils and the Ministry of Agriculture, Fisheries and Food.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK00 (N/A)	98.4
UK04 (SSSI/ASSI)	1.7

Cernydd Carmel SAC

Site details



Location of Cernydd Carmel SAC/SCI/cSAC

Country	Wales
Unitary Authority	Caerfyrddin/ Carmarthenshire
Centroid*	SN592161
Latitude	51 49 32 N
Longitude	04 02 36 W
SAC EU code	UK0030070
Status	Designated Special Area of Conservation (SAC)
Area (ha)	361.14

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (0.5%)
Bogs. Marshes. Water fringed vegetation. Fens (4%)
Heath. Scrub. Maquis and garrigue. Phygrana (19%)
Dry grassland. Steppes (4.5%)
Humid grassland. Mesophile grassland (16%)
Improved grassland (26%)
Broad-leaved deciduous woodland (16.5%)
Inland rocks. Scree. Sands. Permanent snow and ice (11%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (2.5%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

3180 [Turloughs](#) * Priority feature

Pant-y-Llyn turlough occupies a small depression on the northern perimeter of the South Wales Coalfield at Cernydd Carmel. This depression represents a glacial channel formed along the Betws Fault where displacement has brought Carboniferous limestone into contact with older Devonian rock. The hydrological regime of the waterbody is linked to local groundwater behaviour within the limestone. The basin fills to a depth of about 3 m during late autumn and remains full until the following summer when it empties completely, thus reflecting the characteristic behaviour of turloughs. There are no surface drainage channels and a swallow hole is located at the northern end of the basin. The basin floor is covered by bryophytes (mainly *Fontinalis antipyretica* and *Drepanocladus aduncus*) and herbaceous swamp (water horsetail *Equisetum fluviatile* and bladder-sedge *Carex vesicaria*) communities and is surrounded by W3 *Salix cinerea* – *Galium palustre* woodland. Within the willow *Salix* carr, there is a further zonation among the epiphytic bryophytes, with a well-defined *Fontinalis* community on the lower parts of the trees, which are subject to immersion. The invertebrate fauna is characteristic of seasonal standing waters with aquatic beetles Coleoptera acting as the most diverse group of predators on a microinvertebrate community dominated by relatively large Cladocera and Copepoda.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

4010 [Northern Atlantic wet heaths with *Erica tetralix*](#)

4030 [European dry heaths](#)

7110 [Active raised bogs](#) * Priority feature

9180 [Tilio-Acerion forests of slopes, screes and ravines](#) * Priority feature

Annex II species that are a primary reason for selection of this site

Not applicable.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200010
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude	latitude
04 02 36 W	51 49 32 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Turloughs	0.2	B	B	A	A
Northern Atlantic wet heaths with <i>Erica tetralix</i>	3.6	B	C	B	C

European dry heaths	3.1	B	C	C	C
Active raised bogs	4	C	C	B	C
Caves not open to the public	1	D			
<i>Tilio-Acerion</i> forests of slopes, screes and ravines	12.2	C	C	B	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Rhinolophus ferrumequinum</i>	2	-	-	-	D			

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	0.5
Bogs. Marshes. Water fringed vegetation. Fens	4.0
Heath. Scrub. Maquis and garrigue. Phygrana	19.0
Dry grassland. Steppes	4.5
Humid grassland. Mesophile grassland	16.0
Alpine and sub-alpine grassland	
Improved grassland	26.0
Other arable land	
Broad-leaved deciduous woodland	16.5
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	11.0
Other land (including towns, villages, roads, waste places, mines, industrial sites)	2.5
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Basic, Igneous, Limestone, Neutral, Peat, Sandstone

Geomorphology & landscape:

Caves, Crags/ledges, Lowland, Slope, Valley

4.2 Quality and importance

Turloughs

- for which this is one of only two known outstanding localities in the United Kingdom.
- which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 10 hectares.

Northern Atlantic wet heaths with *Erica tetralix*

- for which the area is considered to support a significant presence.

European dry heaths

- for which the area is considered to support a significant presence.

Active raised bogs

- for which the area is considered to support a significant presence.

Tilio-Acerion forests of slopes, screes and ravines

- for which the area is considered to support a significant presence.

4.3 Vulnerability

Proposals to intensify agricultural practices are being addressed through management agreements and Tir Cymen/Tir Gofal agri-environment schemes.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	23.6
UK04 (SSSI/ASSI)	100.0

Afonydd Cleddau/ Cleddau Rivers SAC

Site details



Location of Afonydd Cleddau/ Cleddau Rivers SAC/SCI/cSAC

Country	Wales
Unitary Authority	Ceredigion; Penfro/ Pembrokeshire
Centroid*	SM938249
Latitude	51 53 04 N
Longitude	04 59 49 W
SAC EU code	UK0030074
Status	Designated Special Area of Conservation (SAC)
Area (ha)	750.73

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (26%)
Bogs. Marshes. Water fringed vegetation. Fens (17%)
Heath. Scrub. Maquis and garrigue. Phygrana (17%)
Dry grassland. Steppes (2%)
Improved grassland (9%)
Other arable land (0.3%)
Broad-leaved deciduous woodland (26%)
Coniferous woodland (2%)
Mixed woodland (0.2%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.5%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

3260 [Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation](#)

7110 [Active raised bogs](#) * Priority feature

91E0 [Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* \(*Alno-Padion*, *Alnion incanae*, *Salicion albae*\)](#) * Priority feature

Annex II species that are a primary reason for selection of this site

1096 [Brook lamprey](#) *Lampetra planeri*

The Cleddau rivers are a predominantly lowland catchment in the Pembrokeshire peninsula. The substrates consist mainly of sand, gravel and well-aerated silt, providing an excellent mosaic of lamprey spawning and nursery habitat. This is reflected in electrofishing surveys carried out by the Environment Agency, which indicate the presence of ammocoetes throughout the catchment.

1099 [River lamprey](#) *Lampetra fluviatilis*

The Cleddau Rivers in south-west Wales arise at fairly low altitude, and this moderate to low-gradient catchment with a mixture of gravels and silts provides large areas of good lamprey habitat. Electrofishing data indicates that ammocoetes are widespread throughout the SAC, and adult **river lampreys** *Lampetra fluviatilis* are evident during the spawning season.

1163 [Bullhead](#) *Cottus gobio*

The Cleddau differs from the Teifi system, also in south-west Wales, in its gentler gradients and more meso-eutrophic nature. The generally finer substrates present and more widespread shading means that **bullhead** *Cottus gobio* in the Cleddau Rivers are more likely to depend on macrophytes and woody debris for cover, and represent a lowland type population. Electrofishing data indicates that bullhead are very widespread throughout the catchment.

1355 [Otter](#) *Lutra lutra*

The Eastern and Western Cleddau Rivers flow through a largely lowland landscape, eventually joining and flowing into Milford Haven, which is part of the Pembrokeshire Marine cSAC. These slow-flowing rivers have a diversity of bank-side habitats, and good water quality ensures good stocks of **otter** *Lutra lutra* prey species. The otter population on these rivers has shown excellent signs of recovery during the last 10–20 years.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1095 [Sea lamprey](#) *Petromyzon marinus*

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200012
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
04 59 49 W	51 53 04 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation	0.67	B	C	C	C
Active raised bogs	0.25	C	C	C	C
Degraded raised bogs still capable of natural regeneration	0.66	D			
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	40	C	B	C	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Petromyzon marinus</i>	Common	-	-	-	C	B	C	C
<i>Lampetra planeri</i>	Common	-	-	-	B	B	C	B
<i>Lampetra fluviatilis</i>	Common	-	-	-	B	B	C	B
<i>Alosa alosa</i>	Very rare	-	-	-	D			
<i>Salmo salar</i>	251-500	-	-	-	D			
<i>Cottus gobio</i>	Common	-	-	-	B	B	B	B
<i>Lutra lutra</i>	Common	-	-	-	C	A	C	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	26.0
Bogs. Marshes. Water fringed vegetation. Fens	17.0
Heath. Scrub. Maquis and garrigue. Phygrana	17.0
Dry grassland. Steppes	2.0
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	9.0
Other arable land	0.3
Broad-leaved deciduous woodland	26.0
Coniferous woodland	2.0
Evergreen woodland	
Mixed woodland	0.2
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	

Habitat classes	% cover
Inland rocks. Screes. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	0.5
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Alluvium, Igneous, Metamorphic, Mud, Nutrient-poor, Nutrient-rich, Peat, Sand, Sandstone, Shingle

Geomorphology & landscape:

Floodplain, Lowland, Valley

4.2 Quality and importance

Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation

- for which the area is considered to support a significant presence.

Active raised bogs

- for which the area is considered to support a significant presence.

Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

- for which the area is considered to support a significant presence.

Petromyzon marinus

- for which the area is considered to support a significant presence.

Lampetra planeri

- for which this is considered to be one of the best areas in the United Kingdom.

Lampetra fluviatilis

- for which this is considered to be one of the best areas in the United Kingdom.

Cottus gobio

- for which this is considered to be one of the best areas in the United Kingdom.

Lutra lutra

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

This habitat and the species within it are vulnerable to pollution from agricultural sources and physical changes such as canalisation, abstraction, riverbank clearance, gravel extraction, alterations to grazing, and man-made obstructions. Healthy fish and otter populations require a semi-natural channel structure, and the fish species also require silt and gravel beds in which to spawn. Over-exploitation of fisheries and introduction of non-native species of animal or plant could also be a threat. Otters are also vulnerable to human disturbance, habitat loss, crossing highways, and injury from discarded fishing equipment. Associated wetland habitats require high water levels and where necessary, controlled grazing.

These issues are being addressed by the Environment Agency Wales in its Local Environment Agency Plan (LEAP). The LEAP actions will be implemented by close liaison with partners and users of the watercourse. The Cleddau Rivers are Designated Salmon Fisheries and a Salmon Action Plan exists which addresses the salmon fisheries issues. Agri-environment schemes are addressing habitat loss issues, and conservation groups/agencies regularly provide advice regarding otter habitat management. The Pembrokeshire Rivers Trust is actively seeking and undertaking habitat improvements within the Cleddau rivers catchment, in partnership with Environment Agency Wales, CCW and landowners.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	4.6
UK00 (N/A)	0.1
UK04 (SSSI/ASSI)	99.9

Cwm Doethie – Mynydd Mallaen SAC

Site details



Location of Cwm Doethie – Mynydd Mallaen SAC/SCI/cSAC

Country	Wales
Unitary Authority	Caerfyrddin/ Carmarthenshire; Ceredigion
Centroid*	SN747458
Latitude	52 05 48 N
Longitude	03 49 49 W
SAC EU code	UK0030128
Status	Designated Special Area of Conservation (SAC)
Area (ha)	4122.29

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (2%)
Bogs. Marshes. Water fringed vegetation. Fens (0.5%)
Heath. Scrub. Maquis and garrigue. Phygrana (42%)
Dry grassland. Steppes (2.5%)
Humid grassland. Mesophile grassland (40%)
Improved grassland (1%)
Broad-leaved deciduous woodland (8%)
Inland rocks. Scree. Sands. Permanent snow and ice (2%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (2%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

91A0 [Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles](#)

Cwm Doethie – Mynydd Mallaen contains a large area of **old sessile oak wood** along a series of interconnected valleys. The site is one of several examples representing this habitat in the core of its Welsh range. Sessile oak *Quercus petraea* woodland predominates, with a typical acidic ground flora and rich lower plant component. The site is also notable for its upland heathland and grassland communities, and for its breeding bird assemblages, which includes red kite *Milvus milvus*.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

4030 [European dry heaths](#)

Annex II species that are a primary reason for selection of this site

Not applicable.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200012
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
03 49 49 W	52 05 48 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
European dry heaths	60.05	C	C	B	C

Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	8.01	B	C	B	B
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3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Lampetra planeri</i>	Present	-	-	-	D			
<i>Lampetra fluviatilis</i>	Present	-	-	-	D			
<i>Salmo salar</i>	Present	-	-	-	D			
<i>Cottus gobio</i>	Present	-	-	-	D			

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	2.0
Bogs. Marshes. Water fringed vegetation. Fens	0.5
Heath. Scrub. Maquis and garrigue. Phygrana	42.0
Dry grassland. Steppes	2.5
Humid grassland. Mesophile grassland	40.0
Alpine and sub-alpine grassland	
Improved grassland	1.0
Other arable land	
Broad-leaved deciduous woodland	8.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	2.0
Other land (including towns, villages, roads, waste places, mines, industrial sites)	2.0
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Igneous, Peat

Geomorphology & landscape:

Caves, Crags/ledges, Escarpment, Hilly, Slope, Upland, Valley

4.2 Quality and importance

European dry heaths

- for which the area is considered to support a significant presence.

Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

Common land occupies a large proportion of the site. In the past, overgrazing has led to the loss of extent and quality of heathlands and affected regeneration within some woodland blocks. However, many of the private owners and the graziers on the common land have entered the ESA agri-environment scheme.

The RSPB own a significant parcel of land within the site.

Maintenance of woodlands depends on achieving protection from grazing. The heathland is vulnerable to overgrazing. Some areas not currently heathland would revert if grazing pressure was reduced.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	1.7
UK04 (SSSI/ASSI)	100.0

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:**1.1 Type**

J

1.2 Site code

UK9014111

1.3 Compilation date

199601

1.4 Update**1.5 Relationship with other Natura 2000 sites**

U	K	0	0	1	2	6	4	2
U	K	0	0	1	2	6	7	0
U	K	0	0	1	2	9	2	8
U	K	0	0	3	0	1	2	8
U	K	0	0	3	0	1	4	5

1.6 Respondent(s)

International Designations, JNCC, Peterborough

1.7 Site name

Elenydd – Mallaen

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	199601
date site designated as SAC	

2. Site location:**2.1 Site centre location**

longitude

latitude

03 43 39 W

52 16 07 N

2.2 Site area (ha)

30022.14

2.3 Site length (km)**2.5 Administrative region**

NUTS code	Region name	% cover
UK912	Dyfed	44.74%
UK914	Powys	54.87%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

Code	Species name	Population			Site assessment			
		Resident	Migratory		Population	Conservation	Isolation	Global
			Breed	Winter				
A098	<i>Falco columbarius</i>		7 P		C		C	
A074	<i>Milvus milvus</i>		15 P		B		C	

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	0.4
Bogs. Marshes. Water fringed vegetation. Fens	18.1
Heath. Scrub. Maquis and garrigue. Phygrana	17.0
Dry grassland. Steppes	17.6
Humid grassland. Mesophile grassland	42.0
Alpine and sub-alpine grassland	
Improved grassland	0.3
Other arable land	
Broad-leaved deciduous woodland	2.4
Coniferous woodland	1.7
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	0.5
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Metalliferous, Nutrient-poor, Peat, Sedimentary, Shingle

Geomorphology & landscape:

Crags/ledges, Escarpment, Hilly, Montane, Upland, Valley

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC)

During the breeding season the area regularly supports:

<i>Falco columbarius</i>	0.5% of the GB breeding population 5 year mean, 1987-1991
<i>Milvus milvus</i>	9.3% of the GB breeding population Count, as at 1997

ARTICLE 4.2 QUALIFICATION (79/409/EEC)

4.3 Vulnerability

The site's primary importance lies in its good population of Merlin and Red Kite. Merlin prey on small birds, which are most numerous in heath and scrub habitats around the hill margins. These areas are vulnerable to damage by over-grazing and excessive burning, which is carried out illegally by some graziers. Enforcement action by WOAD may help to alleviate the problem. Nesting Merlin are vulnerable to disturbance from walkers, mountain bikers and motorcycles. The Welsh Water Ranger Service and local police do their best to prevent disturbance and the local authority are considering traffic regulation orders.

Red Kites scavenge for sheep carrion on the open hill and prey on small mammals and worms on the hill edge. Thus they are vulnerable to a reduction in sheep subsidies and Environmentally Sensitive Area payments are effectively preventing such changes. Red Kites nest in woodland and are particularly vulnerable to human disturbance during the breeding season. The most vulnerable kite nests are watched to prevent intentional and accidental disturbance. Forestry operations could threaten certain nest sites, however liaison with the Forestry Authority and Forestry Enterprise has been effective in protecting most active nests.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	3.3
UK04 (SSSI/ASSI)	99.6

Gower Ash Woods/ Coedydd Ynn Gwyr SAC

Site details



Location of Gower Ash Woods/ Coedydd Ynn Gwyr SAC/SCI/cSAC

Country	Wales
Unitary Authority	Abertawe/ Swansea
Centroid*	SS574882
Latitude	51 34 29 N
Longitude	04 03 35 W
SAC EU code	UK0030157
Status	Designated Special Area of Conservation (SAC)
Area (ha)	233.15

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Heath. Scrub. Maquis and garrigue. Phygrana (3.83%)
Humid grassland. Mesophile grassland (3.01%)
Improved grassland (2.45%)
Broad-leaved deciduous woodland (90.63%)
Coniferous woodland (0.04%)
Inland rocks. Screens. Sands. Permanent snow and ice (0.04%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

9180 Tilio-Acerion forests of slopes, screes and ravines * Priority feature

Gower Ash Woods comprises one of the most extensive areas of **Tilio-Acerion forest** in Wales and is near the western extreme of the habitat's range in the UK. The woods are formed along a series of largely inter-linked valleys and ravines cut into Carboniferous limestone, and also on coastal slopes and cliffs with unique transitions through scrub to sand dunes, freshwater marsh and saltmarsh. The woods have a great diversity of trees and shrubs, including ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus*, pedunculate oak *Quercus robur*, small-leaved lime *Tilia cordata*, field-maple *Acer campestre*, dogwood *Cornus sanguinea* and spindle *Euonymus europaeus*. The ground flora is rich, with dramatic vernal displays of ramsons *Allium ursinum* and bluebell *Hyacinthoides non-scripta* and characteristic species such as hart's-tongue *Phyllitis scolopendrium*. Rare species include purple gromwell *Lithospermum purpureocaeruleum* and butcher's-broom *Ruscus aculeatus*.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) * Priority feature

Annex II species that are a primary reason for selection of this site

Not applicable.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200012
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude	latitude
04 03 35 W	51 34 29 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK924	West Glamorgan	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Caves not open to the public	0.04	D			
<i>Asperulo-Fagetum</i> beech forests	5.6	D			

<i>Tilio-Acerion</i> forests of slopes, screes and ravines	78	B	C	B	B
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	0.13	D			
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	1.3	C	C	B	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Rhinolophus hipposideros</i>	Present	-	-	-	D			
<i>Rhinolophus ferrumequinum</i>	Present	-	-	-	D			

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. <i>Phygrana</i>	3.8
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	3.0
Alpine and sub-alpine grassland	
Improved grassland	2.5
Other arable land	
Broad-leaved deciduous woodland	90.6
Coniferous woodland	0.0
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	0.0
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

<p>Soil & geology: Alluvium, Basic, Limestone, Neutral</p> <p>Geomorphology & landscape: Caves, Coastal, Lowland, Slope, Valley</p>

4.2 Quality and importance

<p><i>Tilio-Acerion</i> forests of slopes, screes and ravines</p> <ul style="list-style-type: none"> for which this is considered to be one of the best areas in the United Kingdom. <p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p> <ul style="list-style-type: none"> for which the area is considered to support a significant presence.

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4.3 Vulnerability

Management of these generally steep-sided woodland blocks is predominantly by non-intervention and includes part of a National Nature Reserve, a Wildlife Trust Reserve and Local Nature Reserve, and includes educational and visitor information. All areas are within the Gower Area of Outstanding Natural Beauty (AONB).

Future management considerations would include selective removal of conifers as well as thinning of beech.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	28.9
UK04 (SSSI/ASSI)	100.0

Gower Commons/ Tiroedd Comin Gwyr SAC

Site details



Location of Gower Commons/ Tiroedd Comin Gwyr SAC/SCI/cSAC

Country	Wales
Unitary Authority	Abertawe/ Swansea
Centroid*	SS497900
Latitude	51 35 20 N
Longitude	04 10 11 W
SAC EU code	UK0012685
Status	Designated Special Area of Conservation (SAC)
Area (ha)	1776.72

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (0.1%)
Bogs. Marshes. Water fringed vegetation. Fens (15.4%)
Heath. Scrub. Maquis and garrigue. Phygrana (75.2%)
Dry grassland. Steppes (0.7%)
Humid grassland. Mesophile grassland (5.3%)
Improved grassland (2.5%)
Broad-leaved deciduous woodland (0.7%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.1%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

4010 [Northern Atlantic wet heaths with *Erica tetralix*](#)

This south Wales site supports several extensive tracts of lowland vegetation of NVC type M15 *Scirpus cespitosus* – *Erica tetralix* wet heath. There are well-developed transitions to stands of humid and dry heath and to various forms of soligenous and topogenous mire, as well as to woodland, scrub, and bracken *Pteridium aquilinum*. The site includes strong populations of a number of western species, including whorled caraway *Carum verticillatum* and the Annex II butterfly **1065 Marsh fritillary *Euphydryas aurinia***.

4030 [European dry heaths](#)

Gower Commons represents lowland **European dry heaths** in south Wales. The dry heath is mostly referable to NVC type H4 *Ulex gallii* – *Agrostis curtisii* heath, with subsidiary amounts of H8 *Calluna vulgaris* – *Ulex gallii* heath, and occurs as part of a mosaic with wet heath, acidic mire, bracken *Pteridium aquilinum*, acid grassland and purple moor-grass *Molinia caerulea* pasture. Bristle bent *Agrostis curtisii* is close to its northernmost limit in Great Britain at this site.

6410 [Molinia meadows on calcareous, peaty or clayey-silt-laden soils \(*Molinia caerulea*\)](#)

At Gower Commons, stands of M24 *Molinia caerulea* – *Cirsium dissectum* fen-meadow are set in a heathland context. Ericaceous floristic components are well-developed, and transitions to wet and humid heath, and to acid valley mire, are clearly displayed. This habitat type is best represented on Fairwood Common and Welsh Moor, with further significant examples on several of the other Gower Commons. The nationally scarce soft-leaved sedge *Carex montana* and geographically restricted whorled caraway *Carum verticillatum* occur in the **Molinia meadows** habitat at this site.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

1044 [Southern damselfly *Coenagrion mercuriale*](#)

Gower Commons, supporting small populations at two localities, represents **southern damselfly *Coenagrion mercuriale*** in south Wales.

1065 [Marsh fritillary butterfly *Euphydryas* \(*Eurodryas*, *Hypodryas*\) *aurinia*](#)

This is a cluster of at least five large sub-populations in a small area within the south-west Wales stronghold of **marsh fritillary *Euphydryas aurinia***. This cluster of sites represents the species in south Wales, and recent survey work has shown that this population constitutes the second most important area for the species in Wales.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199601
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
04 10 11 W	51 35 20 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK924	West Glamorgan	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Vegetated sea cliffs of the Atlantic and Baltic coasts	0.02	D			
Northern Atlantic wet heaths with <i>Erica tetralix</i>	29.5	A	C	A	B

European dry heaths	20.9	B	C	B	B
<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	3.1	B	C	B	B

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Coenagrion mercuriale</i>	227	-	-	-	C	B	B	B
<i>Euphydrias</i> (<i>Eurodryas</i> , <i>Hypodryas</i>) <i>aurinia</i>	51-100	-	-	-	C	B	C	B
<i>Cottus gobio</i>	Present	-	-	-	D			
<i>Rhinolophus hipposideros</i>	Present	-	-	-	D			

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	0.1
Bogs. Marshes. Water fringed vegetation. Fens	15.4
Heath. Scrub. Maquis and garrigue. Phygrana	75.2
Dry grassland. Steppes	0.7
Humid grassland. Mesophile grassland	5.3
Alpine and sub-alpine grassland	
Improved grassland	2.5
Other arable land	
Broad-leaved deciduous woodland	0.7
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	0.1
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Basic, Clay, Limestone, Neutral, Nutrient-poor, Peat, Sandstone, Sedimentary

Geomorphology & landscape:

Cliffs, Coastal, Lowland, Slope

4.2 Quality and importance

Northern Atlantic wet heaths with *Erica tetralix*

- for which this is considered to be one of the best areas in the United Kingdom.

European dry heaths

- for which this is considered to be one of the best areas in the United Kingdom.

Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)

- for which this is considered to be one of the best areas in the United Kingdom.

Coenagrion mercuriale

- for which this is considered to be one of the best areas in the United Kingdom.

Euphydryas (Eurodryas, Hypodryas) aurinia

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

Unauthorised burning occurs on all the commons. This issue is being addressed on Cefn Bryn Common via a Tir Cymen agri-environment agreement. The cutting of fire-breaks together with control of bracken and *Rhododendron* helps to minimise the damaging effects of such unauthorised practices. Off-road vehicles can also cause localised damage.

The Gower Commons Initiative which commenced in August 2000 is part of the Tomorrow's Heathland Heritage project funded by the Heritage Lottery Fund. The main objectives are aimed at developing the existing lowland heathland resource via management for countryside enhancement and nature conservation. The project will meet national Biodiversity Action Plan targets by maintaining vegetation structure, preventing fragmentation or loss of habitat, as well as achieving restoration and recreation of heathland. Measures include the provision of cattle grids, creation of firebreaks, control of bracken and scrub, enhancing public access, and promoting public awareness and understanding. The five-year scheme is being administered by a partnership that includes the City & County of Swansea, Countryside Council for Wales, Gower Commoners' Association, National Trust and Gower Society.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

Gweunydd Blaencleddau SAC

Site details



Location of Gweunydd Blaencleddau SAC/SCI/cSAC

Country	Wales
Unitary Authority	Penfro/ Pembrokeshire
Centroid*	SN155317
Latitude	51 57 12 N
Longitude	04 41 07 W
SAC EU code	UK0030144
Status	Designated Special Area of Conservation (SAC)
Area (ha)	150.11

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Bogs. Marshes. Water fringed vegetation. Fens (19%)
Heath. Scrub. Maquis and garrigue. Phygrana (10%)
Dry grassland. Steppes (1.5%)
Humid grassland. Mesophile grassland (54.5%)
Improved grassland (5%)
Broad-leaved deciduous woodland (9.5%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.5%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

4010 [Northern Atlantic wet heaths with *Erica tetralix*](#)

6410 [Molinia meadows on calcareous, peaty or clayey-silt-laden soils \(*Molinion caeruleae*\)](#)

7130 [Blanket bogs](#) * Priority feature

7140 [Transition mires and quaking bogs](#)

7230 [Alkaline fens](#)

Annex II species that are a primary reason for selection of this site

1065 [Marsh fritillary butterfly](#) *Euphydryas (Eurodryas, Hypodryas) aurinia*

This mixture of wet heath and damp grassland at the head of the Eastern Cleddau contains the most extensive habitat network for **marsh fritillary *Euphydryas aurinia*** in Pembrokeshire and, in conjunction with the nearby population at Waun Isaf (Preseli cSAC), supports the strongest metapopulation of the species in this area.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1044 [Southern damselfly](#) *Coenagrion mercuriale*

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200012
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude	latitude
04 41 07 W	51 57 12 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Northern Atlantic wet heaths with <i>Erica tetralix</i>	7.97	C	C	B	C

<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	0.49	C	C	B	C
Blanket bogs	5	C	C	B	C
Transition mires and quaking bogs	1.99	C	C	B	C
Petrifying springs with tufa formation (<i>Cratoneurion</i>)	0.1	D			
Alkaline fens	0.49	C	C	B	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Coenagrion mercuriale</i>	101-250	-	-	-	C	B	C	C
<i>Euphydrias (Eurodryas, Hypodryas) aurinia</i>	501-1000	-	-	-	C	B	B	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	19.0
Heath. Scrub. Maquis and garrigue. Phygrana	10.0
Dry grassland. Steppes	1.5
Humid grassland. Mesophile grassland	54.5
Alpine and sub-alpine grassland	
Improved grassland	5.0
Other arable land	
Broad-leaved deciduous woodland	9.5
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	0.5
Total habitat cover	100%

4.1 Other site characteristics

<p>Soil & geology: Acidic, Clay, Metamorphic, Nutrient-poor, Peat</p> <p>Geomorphology & landscape: Lowland, Valley</p>

4.2 Quality and importance

<p>Northern Atlantic wet heaths with <i>Erica tetralix</i></p> <ul style="list-style-type: none"> for which the area is considered to support a significant presence. <p><i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</p> <ul style="list-style-type: none"> for which the area is considered to support a significant presence.

Blanket bogs

- for which the area is considered to support a significant presence.

Transition mires and quaking bogs

- for which the area is considered to support a significant presence.

Alkaline fens

- for which the area is considered to support a significant presence.

Coenagrion mercuriale

- for which the area is considered to support a significant presence.

Euphydryas (Eurodryas, Hypodryas) aurinia

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

The enclosures are extensively grazed under a variety of different regimes, principally involving horses and cattle. *Euphydryas aurinia* requires a moderately tussocky *Molinia*-dominated sward with abundant *Succisa pratensis*. Grazing pressures could be increased across much of the site to produce or maintain the requisite sward structure for this species. Conversely, hard grazing in two enclosures is crucial to the maintenance of open flush systems with populations of *Coenagrion mercuriale*.

The site is in multiple ownership. 38% is managed under ESA agreements, and 6% under a management agreement with the Pembrokeshire Coast National Park Authority. CCW will seek to support appropriate management over the remainder of the site, and to rationalise grazing regimes where they are not currently delivering key conservation objectives.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

Mynydd Epynt SAC

Site details



Location of Mynydd Epynt SAC/SCI/cSAC

Country	Wales
Unitary Authority	Powys
Centroid*	SN883400
Latitude	52 02 50 N
Longitude	03 37 42 W
SAC EU code	UK0030221
Status	Designated Special Area of Conservation (SAC)
Area (ha)	40.12

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (0.5%)
Bogs. Marshes. Water fringed vegetation. Fens (6.2%)
Heath. Scrub. Maquis and garrigue. Phygrana (15.7%)
Dry grassland. Steppes (49.7%)
Humid grassland. Mesophile grassland (22.9%)
Broad-leaved deciduous woodland (5%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

1393 Slender green feather-moss *Drepanocladus (Hamatocaulis) vernicosus*

Slender green feather-moss *Drepanocladus vernicosus* occurs in at least five flush complexes within this upland range in south central Wales. The flush habitats are generally situated within expanses of grass moorland.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:**1.1 Type**

B

1.2 Site code

UK0030221

1.3 Compilation date

200012

1.4 Update

200210

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

International Designations, JNCC, Peterborough

1.7 Site name

Mynydd Epynt

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200012
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude

latitude

03 37 42 W

52 02 50 N

2.2 Site area (ha)

40.12

2.3 Site length (km)**2.5 Administrative region**

NUTS code	Region name	% cover
UK914	Powys	100.01%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Alkaline fens	1	D			
Bog woodland	3.7	D			

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Drepanocladus (Hamatocaulis) vernicosus</i>	Present	-	-	-	C	A	C	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	0.5
Bogs. Marshes. Water fringed vegetation. Fens	6.2
Heath. Scrub. Maquis and garrigue. Phygrana	15.7
Dry grassland. Steppes	49.7
Humid grassland. Mesophile grassland	22.9
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	5.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Basic, Clay, Neutral, Peat, Sandstone, Sedimentary

Geomorphology & landscape:

Lowland, Slope, Upland, Valley

4.2 Quality and importance

Drepanocladus (Hamatocaulis) vernicosus

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

All areas of the site supporting *Drepanocladus vernicosus* form part of the Ministry of Defence army training area. These were formerly mostly used by artillery. The ranges now offer important infantry training. No areas with *D. vernicosus* lie in areas affected by the impact of large munitions but may suffer sporadic damage from trampling and the use of small explosive charges. All areas with *D. vernicosus* are grazed by sheep, currently at levels sufficient to prevent scrub encroachment, whilst not damaging the flush vegetation. In the recent past, the MoD undertook some drainage of flushes by the use of open ditches, but none of these areas were affected.

Plans to change the grazing/letting arrangements from an annual licence held in common over the whole range to short-term tenancies over specific areas could allow farmers to drain or fertilise more of the range. Conditions will need to be included in the tenancies to preclude this activity.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

North Pembrokeshire Woodlands/ Coedydd Gogledd Sir Benfro SAC

Site details



Location of North Pembrokeshire Woodlands/ Coedydd Gogledd Sir Benfro SAC/SCI/cSAC

Country	Wales
Unitary Authority	Penfro/ Pembrokeshire
Centroid*	SN046345
Latitude	51 58 29 N
Longitude	04 50 47 W
SAC EU code	UK0030227
Status	Designated Special Area of Conservation (SAC)
Area (ha)	315.68

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (0.3%)
Bogs. Marshes. Water fringed vegetation. Fens (0.6%)
Heath. Scrub. Maquis and garrigue. Phygrana (13%)
Dry grassland. Steppes (3%)
Humid grassland. Mesophile grassland (9%)
Broad-leaved deciduous woodland (70%)
Inland rocks. Screes. Sands. Permanent snow and ice (0.1%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (4%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

North Pembrokeshire Woodlands is an example of **old sessile oak wood** in the south-west of the habitat's range in Wales, and at the extreme west of its UK range at this latitude. The site is a complex of diverse woodland units, which range from strongly acidic upland oakwood to areas transitional to lowland oakwood; important fragments of floodplain woodland occur in the valley bottoms. A variety of management treatments are in place, with minimum intervention, managed high forest, active coppice, and well-established wood-pasture all represented. The woods have an exceptional diversity of rare epiphytic lichens.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) * Priority feature

Annex II species that are a primary reason for selection of this site

1308 Barbastelle *Barbastella barbastellus*

Species occurrence description not yet available.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200010
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
04 50 47 W	51 58 29 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation	0.3	D			
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	69	A	C	B	A
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	2	C	C	B	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Lampetra planeri</i>	Present	-	-	-	D			
<i>Lampetra fluviatilis</i>	Present	-	-	-	D			
<i>Salmo salar</i>	Present	-	-	-	D			
<i>Cottus gobio</i>	Present	-	-	-	D			
<i>Barbastella barbastellus</i>	Present	-	-	-	B	A	B	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	0.3
Bogs. Marshes. Water fringed vegetation. Fens	0.6
Heath. Scrub. Maquis and garrigue. Phygrana	13.0
Dry grassland. Steppes	3.0
Humid grassland. Mesophile grassland	9.0
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	70.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	0.1
Other land (including towns, villages, roads, waste places, mines, industrial sites)	4.0
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Igneous, Metamorphic, Nutrient-poor

Geomorphology & landscape:

Lowland, Valley

4.2 Quality and importance

Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

- for which this is considered to be one of the best areas in the United Kingdom.

Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

- for which the area is considered to support a significant presence.

Barbastella barbastellus

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

The ancient woodlands in this series differ in their management history and various environmental factors. Large areas of woodland were felled after WW1, and a decline in traditional broad-leaved woodland management such as coppicing has taken place. The site has been fragmented by coniferous afforestation. The lack of variation in age structure limits the structural and biological diversity; current management activities seek to redress this through, for example, selective thinning or reintroduction of coppicing. Many of the woods are owned or managed by conservation organisations (Pembrokeshire Coast National Park Authority, Countryside Council for Wales, Wildlife Trust West Wales). Financial assistance for management is provided by the Forestry Commission, through the Woodland Grant Scheme. Several areas are in private ownership, but under management agreements with CCW.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	43.0
UK04 (SSSI/ASSI)	100.0

Pembrokeshire Bat Sites and Bosherton Lakes/ Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC

Site details



Location of Pembrokeshire Bat Sites and Bosherton Lakes/ Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC/SCI/cSAC

Country	Wales
Unitary Authority	Penfro/ Pembrokeshire
Centroid*	SR966954
Latitude	51 37 16 N
Longitude	04 56 18 W
SAC EU code	UK0014793
Status	Designated Special Area of Conservation (SAC)
Area (ha)	122.44

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (33%)
Bogs. Marshes. Water fringed vegetation. Fens (5%)
Heath. Scrub. Maquis and garrigue. Phygrana (13%)
Dry grassland. Steppes (3%)
Improved grassland (1.8%)
Broad-leaved deciduous woodland (29%)
Mixed woodland (15%)

Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.2%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

3140 [Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.](#)

Bosherston Lakes are an outstanding shallow marl lake system created at intervals in the late 18th and mid 19th centuries by damming a limestone river valley. They are fed in part by a series of calcium-rich springs and are isolated from the sea by a small sand dune ridge. Charophytes are represented by bristly stonewort *Chara hispida* which forms dense beds up to 1 m high, with individual plants up to 3.5 m long, and by variable quantities of *C. globularis*, *C. virgata* and *C. vulgaris*. Extensive white water lily *Nymphaea alba* beds also occur, mainly in the western and central arms. In contrast, the eastern arm is characterised by variably dense stands of curled pondweed *Potamogeton crispus*, fennel pondweed *Potamogeton pectinatus*, spiked water-milfoil *Myriophyllum spicatum* and Canadian waterweed *Elodea canadensis*. Emergent vegetation fringes parts of the system, mostly common reed *Phragmites australis*, bulrush *Typha latifolia*, common spike-rush *Eleocharis palustris* and branched bur-reed *Sparganium erectum*.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

1304 [Greater horseshoe bat](#) *Rhinolophus ferrumequinum*

This site in south-west Wales supports approximately 9.5% of the UK **greater horseshoe bat** *Rhinolophus ferrumequinum* population. It represents the species at the north-western extremity of its range. The site contains a mixture of maternity, transitory and hibernation sites and so demonstrates good conservation of features required for survival.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1303 [Lesser horseshoe bat](#) *Rhinolophus hipposideros*

1355 [Otter](#) *Lutra lutra*

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199506
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
04 56 18 W	51 37 16 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	24.25	B	B	B	B
Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>)	0.84	D			

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Cottus gobio</i>	Present	-	-	-	D			
<i>Rhinolophus hipposideros</i>	251-500	-	-	-	C	B	B	C
<i>Rhinolophus ferrumequinum</i>	251-500	-	-	-	B	A	B	B
<i>Lutra lutra</i>	1-5	-	-	-	C	A	C	C

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	33.0
Bogs. Marshes. Water fringed vegetation. Fens	5.0
Heath. Scrub. Maquis and garrigue. Phygrana	13.0
Dry grassland. Steppes	3.0
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	1.8
Other arable land	
Broad-leaved deciduous woodland	29.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	15.0
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	0.2
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Basic, Limestone, Neutral, Sand

Geomorphology & landscape:

Coastal, Lowland, Valley

4.2 Quality and importance

Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.

- for which this is considered to be one of the best areas in the United Kingdom.

Rhinolophus hipposideros

- for which the area is considered to support a significant presence.

Rhinolophus ferrumequinum

- 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 Vulnerability

Both bat species are vulnerable to physical deterioration of the buildings which contain the roosts, to human disturbance, and to habitat loss and disturbance within their key feeding areas. These issues are being addressed through existing or pending management agreements or management plans over nursery roosts, transitory roosts, associated hibernacula and adjacent feeding habitats. There is regular surveillance of the greater horseshoe's nursery roosts, and an annual census is undertaken at the lesser horseshoe sites. These populations use roosting sites throughout Pembrokeshire. Known roosts are under surveillance.

The lakes are vulnerable to drought, to nutrient enrichment, and to siltation. They are covered by a Nature Reserve Agreement with the owners, the National Trust, which is addressing these issues.

The breeding otter population is vulnerable to water pollution, human disturbance, entanglement in fishing gear and habitat loss. These issues are being addressed through the Nature Reserve Agreement as above.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	45.0
UK04 (SSSI/ASSI)	100.0

Pembrokeshire Marine/ Sir Benfro Forol SAC

Site details



Location of Pembrokeshire Marine/ Sir Benfro Forol SAC/SCI/cSAC

Country	Wales
Unitary Authority	Penfro/ Pembrokeshire
Centroid*	SM503093
Latitude	51 43 35 N
Longitude	05 36 57 W
SAC EU code	UK0013116
Status	Designated Special Area of Conservation (SAC)
Area (ha)	138069.45

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Marine areas. Sea inlets (96%)

Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (3.8%)

Salt marshes. Salt pastures. Salt steppes (0.2%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

1130 [Estuaries](#)

Pembrokeshire Marine includes the Daugleddau **estuary**, a ria estuary in south-west Wales, formed in the upper reaches of one of the best examples of a ria in the UK. Associated with the wide range of environmental conditions, particularly seabed substrates, tidal streams and salinity gradients, there is a wide diversity of communities and species. The species-richness of sediment communities throughout Milford Haven and the Daugleddau is high. Tide-swept sponge communities on shell/cobble substrates and bedrock in the upper reaches of the Daugleddau are exceptional in their diversity. The site also includes smaller estuaries entering the Daugleddau and Milford Haven, and wide intertidal mudflats with rich and productive invertebrate annelid and mollusc communities, occurring in 'pills' (creeks).

1160 [Large shallow inlets and bays](#)

Pembrokeshire Marine in south-west Wales includes Milford Haven, one of the best examples of a ria in the UK, and the wide, shallow, predominantly sandy embayment of St Brides Bay. The wide range of environmental conditions, particularly seabed substrates, tidal streams and salinity gradients, supports high community and species diversity. The species-richness of sediment communities throughout Milford Haven is particularly high, with intertidal sandy/muddy areas supporting extensive beds of narrow-leaved eelgrass *Zostera angustifolia*. High-salinity water and rocky substrates penetrate far upstream, and communities characteristic of fully saline conditions occur. A wide range of subtidal and intertidal rocky habitats are present, from rocky reefs and boulders to rich underboulders, crevices, overhangs and pools.

1170 [Reefs](#)

Reefs in this south-west Wales site are largely composed of igneous rock but include areas of more friable Old Red Sandstone and some limestone. Extensive areas of sublittoral rocky reef stretch offshore from the west Pembrokeshire coast and between the Pembrokeshire islands and many small rocky islets. Limestone reefs occur in the south of the site. Reefs also extend through Milford Haven and into the variable salinity conditions of the Daugleddau estuary. Reefs within the site are subject to an exceptional variation in strength of tidal streams and wave exposure. The highly variable rocky seabed topography, together with the indented coastline and extreme tidal range, cause strong tidal streams, particularly around headlands, through sounds and in tidal inlets. The shallower and south-west-facing rocky reefs are exposed to severe wave action, while many others are extremely wave-sheltered. Many of the reefs extend onto the shore and provide examples of both the most exposed and the most sheltered intertidal rock communities in southern Britain. Reef habitat diversity is increased by caves, tunnels and surge gullies in both subtidal and intertidal zones. The wide variation in exposure to water movement, the range of rock type, slope, aspect and topography, and the high water quality, together with local exposure to abrasion from adjacent sediments and reduced salinity in the Daugleddau, are reflected in the wide diversity and species abundance of biological communities. Offshore there are particularly extensive areas of tide-swept kelp and species-rich red algal populations and, across the large areas of deeper rock reef, a wide range and abundance of invertebrate animal communities, with hydroid, bryozoan, soft coral and anemone species. More sheltered reefs, including those in lowered salinity and higher turbidity, typically support diverse and species-rich sponge- and ascidian-dominated communities.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

1110 [Sandbanks which are slightly covered by sea water all the time](#)

1140 [Mudflats and sandflats not covered by seawater at low tide](#)

1150 [Coastal lagoons](#) * Priority feature

1330 [Atlantic salt meadows \(*Glauco-Puccinellietalia maritimae*\)](#)

8330 [Submerged or partially submerged sea caves](#)

Annex II species that are a primary reason for selection of this site

1364 [Grey seal](#) *Halichoerus grypus*

Pembrokeshire in south-west Wales is representative of **grey seal** *Halichoerus grypus* colonies in the south-western part of the breeding range in the UK. It is the largest breeding colony on the west coast south of the Solway Firth, representing over 2% of annual UK pup production.

1441 [Shore dock](#) *Rumex rupestris*

Species occurrence description not yet available.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1095 [Sea lamprey](#) *Petromyzon marinus*

1099 [River lamprey](#) *Lampetra fluviatilis*

1102 [Allis shad](#) *Alosa alosa*

1103 [Twaite shad](#) *Alosa fallax*

1355 [Otter](#) *Lutra lutra*

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:**1.1 Type**

K

1.2 Site code

UK0013116

1.3 Compilation date

199710

1.4 Update

200304

1.5 Relationship with other Natura 2000 sites

U	K	9	0	1	4	0	4	1
U	K	9	0	1	4	0	5	1
U	K	9	0	1	4	0	6	1
U	K	9	0	1	4	0	6	2

1.6 Respondent(s)

International Designations, JNCC, Peterborough

1.7 Site name

Pembrokeshire Marine/ Sir Benfro Forol

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199710
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude

latitude

05 36 57 W

51 43 35 N

2.2 Site area (ha)

138069.45

2.3 Site length (km)**2.5 Administrative region**

NUTS code	Region name	% cover
UK912	Dyfed	2.42%
0	Marine	97.58%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Sandbanks which are slightly covered by sea water all the time	30	C	B	B	C
Estuaries	3.96	A	C	B	B
Mudflats and sandflats not covered by seawater at low tide	1.29	B	C	B	C
Coastal lagoons	0	C	C	C	C
Large shallow inlets and bays	16	A	B	B	B
Reefs	29.7	B	B	A	A
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	0.2	C	C	C	C
Submerged or partially submerged sea caves	0.01	C	C	B	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Petromyzon marinus</i>	Present	-	-	-	C	C	C	C
<i>Lampetra fluviatilis</i>	Present	-	-	-	C	C	C	C
<i>Alosa alosa</i>	Present	-	-	-	C	C	C	C
<i>Alosa fallax</i>	Present	-	-	-	C	C	C	C
<i>Tursiops truncatus</i>	Very rare	-	-	-	D			
<i>Phocoena phocoena</i>	Common	-	-	-	D			
<i>Lutra lutra</i>	Present	-	-	-	C	B	C	C
<i>Halichoerus grypus</i>	1001-10,000	-	-	-	B	A	B	B
<i>Rumex rupestris</i>	Present	-	-	-	B	B	B	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	96.0
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	3.8
Salt marshes. Salt pastures. Salt steppes	0.2
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	

Habitat classes	% cover
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

<p>Soil & geology: Biogenic reef, Boulder, Chert/flint, Clay, Cobble, Gravel, Igneous, Limestone/chalk, Maerl, Metamorphic, Mud, Peat, Pebble, Sand, Sandstone/mudstone, Sedimentary, Shingle, Slate/shale</p> <p>Geomorphology & landscape: Cave/tunnel, Cliffs, Coastal, Enclosed coast (including embayment), Estuary, Geos (rocky inlets), Intertidal rock, Intertidal sediments (including sandflat/mudflat), Islands, Lagoon, Open coast (including bay), Pools, Ria, Sound/strait, Subtidal rock (including rocky reefs), Subtidal sediments (including sandbank/mudbank), Surge gullies, Tidal rapids</p>

4.2 Quality and importance

<p>Sandbanks which are slightly covered by sea water all the time</p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p>Estuaries</p> <ul style="list-style-type: none"> • for which this is considered to be one of the best areas in the United Kingdom. <p>Mudflats and sandflats not covered by seawater at low tide</p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p>Coastal lagoons</p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p>Large shallow inlets and bays</p> <ul style="list-style-type: none"> • for which this is considered to be one of the best areas in the United Kingdom. <p>Reefs</p> <ul style="list-style-type: none"> • for which this is considered to be one of the best areas in the United Kingdom. <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p>Submerged or partially submerged sea caves</p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p><i>Petromyzon marinus</i></p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p><i>Lampetra fluviatilis</i></p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p><i>Alosa alosa</i></p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p><i>Alosa fallax</i></p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence. <p><i>Lutra lutra</i></p> <ul style="list-style-type: none"> • for which the area is considered to support a significant presence.

Halichoerus grypus

- for which this is considered to be one of the best areas in the United Kingdom.

Rumex rupestris

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

Water quality issues such as those associated with dredge-spoil disposal are kept under review through liaison with the Environment Agency, Ministry of Agriculture, Fisheries and Food and Milford Haven Port Authority.

Pollution originating from the transport or exploration/production of oil and gas are of concern. Management of shipping using Milford Haven following the *Sea Empress* oil-spill in 1996 has improved and will be kept under review by the Port Authority. Improved contingency planning, which better reflects environmental priorities, involves many statutory agencies and is reflected in a revised national contingency plan published in January 2000.

Marine communities are vulnerable to damage by certain fishing methods. South Wales Sea Fisheries Committee bylaws control activities within Skomer Marine Nature Reserve. Other environmental requirements of management of fisheries are addressed through liaison with the SWSFC. Visitor pressures, including gathering of firewood and kindling, could affect intertidal features. Education and access issues should be addressed through the National Park and local authority.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK02 (MNR)	1.0
UK01 (NNR)	0.1
UK00 (N/A)	96.5
UK04 (SSSI/ASSI)	2.5

Preseli SAC

Site details



Location of Preseli SAC/SCI/cSAC

Country	Wales
Unitary Authority	Penfro/ Pembrokeshire
Centroid*	SN110320
Latitude	51 57 18 N
Longitude	04 45 04 W
SAC EU code	UK0012598
Status	Designated Special Area of Conservation (SAC)
Area (ha)	2705.9

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Bogs. Marshes. Water fringed vegetation. Fens (36%)
Heath. Scrub. Maquis and garrigue. Phygrana (31%)
Dry grassland. Steppes (32%)
Inland rocks. Screes. Sands. Permanent snow and ice (1%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

4010 [Northern Atlantic wet heaths with *Erica tetralix*](#)

4030 [European dry heaths](#)

7150 [Depressions on peat substrates of the *Rhynchosporion*](#)

7230 [Alkaline fens](#)

Annex II species that are a primary reason for selection of this site

1044 [Southern damselfly](#) *Coenagrion mercuriale*

Representing **southern damselfly** *Coenagrion mercuriale* in west Wales, Preseli is one of the strongest populations in the UK, with numbers of adults estimated to be in the thousands and with a long history of records. Conditions on the site, created by its current management, appear to be optimal for this species.

1065 [Marsh fritillary butterfly](#) *Euphydryas (Eurodryas, Hypodryas) aurinia*

The 33 ha common of Waun Isaf within Preseli cSAC supports one of the largest populations of **marsh fritillary** *Euphydryas aurinia* in west Wales. The populations at Waun Isaf and the adjacent Gweunydd Blaencleddau cSAC together form the most important marsh fritillary metapopulation in Pembrokeshire.

1393 [Slender green feather-moss](#) *Drepanocladus (Hamatocaulis) vernicosus*

Preseli is representative of **slender green feather-moss** *Drepanocladus vernicosus* in south-west Wales. It grows here in upland flushes and seepages amidst wet heathland habitat.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199506
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude	latitude
04 45 04 W	51 57 18 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Northern Atlantic wet heaths with <i>Erica tetralix</i>	11.1	C	C	B	C
European dry heaths	10.8	C	C	C	C

<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	0.1	D			
Transition mires and quaking bogs	0.01	D			
Depressions on peat substrates of the <i>Rhynchosporion</i>	1.4	B	C	B	C
Alkaline fens	0.3	C	C	B	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Margaritifera margaritifera</i>	Present	-	-	-	D			
<i>Coenagrion mercuriale</i>	1001-10,000	-	-	-	A	B	C	A
<i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>	Present	-	-	-	B	B	C	B
<i>Drepanocladus (Hamatocaulis) vernicosus</i>	Present	-	-	-	C	A	C	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	36.0
Heath. Scrub. Maquis and garrigue. Phygrana	31.0
Dry grassland. Steppes	32.0
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	1.0
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

<p>Soil & geology: Acidic, Clay, Igneous, Metamorphic, Nutrient-poor, Peat, Sedimentary</p> <p>Geomorphology & landscape: Hilly, Lowland, Slope, Upland, Valley</p>

4.2 Quality and importance

Northern Atlantic wet heaths with <i>Erica tetralix</i>

- for which the area is considered to support a significant presence.

European dry heaths

- for which the area is considered to support a significant presence.

Depressions on peat substrates of the *Rhynchosporion*

- for which the area is considered to support a significant presence.

Alkaline fens

- for which the area is considered to support a significant presence.

Coenagrion mercuriale

- for which this is considered to be one of the best areas in the United Kingdom.

Euphydrias (Eurodryas, Hypodryas) aurinia

- for which this is considered to be one of the best areas in the United Kingdom.

Drepanocladus (Hamatocaulis) vernicosus

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

Coenagrion mercuriale requires well-grazed open wet heath and mire vegetation with small runnels or streams. *Drepanocladus vernicosus* requires boggy slopes flushed with spring water, where the vegetation is quite low-growing. Both species are therefore vulnerable to inappropriate levels or the cessation of grazing. The continuance of the current moderate to high summer grazing regime is essential, but difficult to influence because of the common land status of the site and the large number of registered rights. The current winter transhumance to the Castlemartin section of the Limestone Coast of South West Wales candidate SAC is a vital part of this upland pastoral regime.

Acidification of this upland site is a threat, and atmospheric monitoring occurs at a nearby NNR. Monitoring of water chemistry and *Coenagrion mercuriale* population size is essential. These issues will be addressed in a management plan, which is in preparation.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

Rhos Llawr-cwrt SAC

Site details



Location of Rhos Llawr-cwrt SAC/SCI/cSAC

Country	Wales
Unitary Authority	Ceredigion
Centroid*	SN411497
Latitude	52 07 21 N
Longitude	04 19 12 W
SAC EU code	UK0012680
Status	Designated Special Area of Conservation (SAC)
Area (ha)	46.13

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Inland water bodies (standing water, running water) (0.5%)
Bogs. Marshes. Water fringed vegetation. Fens (13%)
Heath. Scrub. Maquis and garrigue. Phygrana (2%)
Dry grassland. Steppes (3%)
Humid grassland. Mesophile grassland (62.5%)
Improved grassland (15%)
Broad-leaved deciduous woodland (4%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

1065 [Marsh fritillary butterfly](#) *Euphydryas (Eurodryas, Hypodryas) aurinia*

This exceptionally large population (possibly the largest in the UK) represents **marsh fritillary** *Euphydryas aurinia* in its mid-Wales stronghold. This is a site at which both core and satellite populations exist. This site was selected because of the population size and because it is judged to be viable on its own merits (i.e. not relying on other sites in the vicinity).

Annex II species present as a qualifying feature, but not a primary reason for site selection

1393 [Slender green feather-moss](#) *Drepanocladus (Hamatocaulis) vernicosus*

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199506
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
04 19 12 W	52 07 21 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>	1001-10,000	-	-	-	B	B	C	B
<i>Drepanocladus (Hamatocaulis) vernicosus</i>	Present	-	-	-	C	B	C	C

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	0.5
Bogs. Marshes. Water fringed vegetation. Fens	13.0
Heath. Scrub. Maquis and garrigue. Phygrana	2.0
Dry grassland. Steppes	3.0
Humid grassland. Mesophile grassland	62.5
Alpine and sub-alpine grassland	
Improved grassland	15.0
Other arable land	
Broad-leaved deciduous woodland	4.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

<p>Soil & geology: Acidic, Clay, Metamorphic, Neutral, Peat, Slate/shale</p> <p>Geomorphology & landscape: Lowland, Valley</p>

4.2 Quality and importance

<p><i>Euphydryas (Eurodryas, Hypodryas) aurinia</i></p> <ul style="list-style-type: none"> for which this is considered to be one of the best areas in the United Kingdom. <p><i>Drepanocladus (Hamatocaulis) vernicosus</i></p> <ul style="list-style-type: none"> for which the area is considered to support a significant presence.

4.3 Vulnerability

This site is an NNR and is being managed by CCW to maintain its features.

The marsh fritillary butterfly population is dependent upon a mosaic of marshy grassland, wet heath, fen, and mire communities. Traditional low-intensity management with cattle or pony grazing, minimal use of agro-chemicals, and a high water table, low soil nutrient status and moderate pH are required to maintain the habitat. This management is appropriate for *Drepanocladus vernicosus* provided that localised undergrazing does not occur in key areas.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	98.5
UK04 (SSSI/ASSI)	100.0

Afon Teifi/ River Teifi SAC

Site details



Location of Afon Teifi/ River Teifi SAC/SCI/cSAC

Country	Wales
Unitary Authority	Caerfyrddin/ Carmarthenshire; Ceredigion; Penfro/ Pembrokeshire
Centroid*	SN515508
Latitude	52 08 09 N
Longitude	04 10 15 W
SAC EU code	UK0012670
Status	Designated Special Area of Conservation (SAC)
Area (ha)	715.58

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (20%)
Salt marshes. Salt pastures. Salt steppes (1.7%)
Inland water bodies (standing water, running water) (45.1%)
Bogs. Marshes. Water fringed vegetation. Fens (8.9%)
Heath. Scrub. Maquis and garrigue. Phygrana (2.7%)
Humid grassland. Mesophile grassland (1.7%)
Improved grassland (7.5%)
Broad-leaved deciduous woodland (10.5%)
Inland rocks. Scree. Sands. Permanent snow and ice (1.1%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.8%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation

The Teifi in west Wales is a large river flowing over hard rock, with some spectacular gorges in the lower section. It is mainly mesotrophic but also has oligotrophic sections in the upper reaches, and represents an outstanding example of a sub-type 3 river with water-crowfoot *Ranunculus* vegetation in western Britain. The river has a spatey flow regime, and in-stream vegetation is dominated by stream water-crowfoot *Ranunculus penicillatus* ssp. *penicillatus*, water-starworts *Callitriche hamulata* and *C. obtusangula* and the aquatic moss *Fontinalis squamosa* in a diverse macrophyte community characteristic of oligo-mesotrophic base-poor rocks. A small amount of *R. penicillatus* ssp. *pseudofluitans* is present where one tributary flows over base-rich rocks. The river is also noteworthy for an unusually low-gradient section flowing through Cors Caron, a large area of **7110 Active raised bog** that is an SAC in its own right.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*

Annex II species that are a primary reason for selection of this site

1096 Brook lamprey *Lampetra planeri*

The Teifi is a predominantly mesotrophic river in west Wales supporting a large population of **brook lamprey** *Lampetra planeri*. A mixture of habitat and substrate types provides the combination of spawning gravels adjacent to silt beds that are favoured by this and other lamprey species. A large number of tributaries have been included in the SAC; these are thought to be important for lampreys in the Teifi because the main channel is prone to severe floods that may result in washout of smaller ammocoetes.

1099 River lamprey *Lampetra fluviatilis*

The Teifi is a large catchment of high conservation value in west Wales. It contains a healthy population of **river lamprey** *Lampetra fluviatilis*. The semi-natural channel containing a mixture of substrates and in-stream features provides excellent habitat for juvenile lampreys.

1106 Atlantic salmon *Salmo salar*

The Teifi is a medium-sized mesotrophic river system in west Wales. In 1999 the **salmon** *Salmo salar* rod catch in the Teifi was the third-largest in Wales, and the system has not experienced the steep decline in stock numbers seen in many other rivers in the area. This is likely to reflect the high quality of the catchment, with a semi-natural channel largely unaffected by poor water quality or artificial barriers to migration. However, in common with many other Welsh rivers, acidification in the upper reaches is a cause for concern. In common with many other rivers in west Wales, grilse are the main stock component. There is a small traditional coracle fishery that exploits the salmon and sea trout *Salmo trutta trutta*.

1163 Bullhead *Cottus gobio*

The Teifi represents **bullhead** *Cottus gobio* in west Wales. Water quality is generally good, and the diversity of semi-natural habitat and predominance of stony substrates provides excellent bullhead habitat throughout much of the catchment. Environment Agency electrofishing data shows this species to be widespread throughout the system. Bullheads show marked differences in growth and longevity between upland and lowland streams, and the Teifi includes sections representing both types of habitat.

1355 [Otter](#) *Lutra lutra*

The Teifi in west Wales holds **otter *Lutra lutra*** throughout much of its catchment. The river has suitable resting and breeding sites along its length. Evidence from surveys and sightings suggest the tidal reach is being increasingly used by otters.

1831 [Floating water-plantain](#) *Luronium natans*

The Teifi is a mixed habitat supporting **floating water-plantain *Luronium natans*** at the western margins of its range in the UK. This species has been recorded in the nutrient-poor standing waters of the Teifi pools in the headwaters of the river. It has also been recorded in a moderately nutrient-rich stretch of the river immediately downstream of Cors Caron.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1095 [Sea lamprey](#) *Petromyzon marinus*

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199806
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude	latitude
04 10 15 W	52 08 09 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Mudflats and sandflats not covered by seawater at low tide	15.4	D			

<i>Salicornia</i> and other annuals colonising mud and sand	2.66	D			
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	1.97	D			
Embryonic shifting dunes	1.67	D			
Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>	8	C	C	B	C
Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation	10	A	C	A	A

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Margaritifera margaritifera</i>	Present	-	-	-	D			
<i>Petromyzon marinus</i>	Present	-	-	-	C	B	C	C
<i>Lampetra planeri</i>	Common	-	-	-	C	B	C	B
<i>Lampetra fluviatilis</i>	Common	-	-	-	C	B	C	B
<i>Salmo salar</i>	1001-10,000	-	-	-	C	B	C	B
<i>Cottus gobio</i>	>10,000	-	-	-	C	B	B	B
<i>Lutra lutra</i>	11-50	-	-	-	C	B	C	B
<i>Luronium natans</i>	10000	-	-	-	B	B	A	A

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	20.0
Salt marshes. Salt pastures. Salt steppes	1.7
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	45.1
Bogs. Marshes. Water fringed vegetation. Fens	8.9
Heath. Scrub. Maquis and garrigue. Phygrana	2.7
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	1.7
Alpine and sub-alpine grassland	
Improved grassland	7.5
Other arable land	
Broad-leaved deciduous woodland	10.5
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	1.1
Other land (including towns, villages, roads, waste places, mines, industrial sites)	0.8
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Alluvium, Clay, Mud, Peat, Sand, Sandstone, Shingle

Geomorphology & landscape:

Floodplain, Lowland, Upland, Valley

4.2 Quality and importance

Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*

- for which the area is considered to support a significant presence.

Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation

- 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 planeri

- for which this is considered to be one of the best areas in the United Kingdom.

Lampetra fluviatilis

- for which this is considered to be one of the best areas in the United Kingdom.

Salmo salar

- for which this is considered to be one of the best areas in the United Kingdom.

Cottus gobio

- for which this is considered to be one of the best areas in the United Kingdom.

Lutra lutra

- for which this is considered to be one of the best areas in the United Kingdom.

Luronium natans

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

The species and habitats present on this site are dependent on water quality, flow rate and appropriate management of riparian habitat. Existing abstractions and discharges are being reviewed by the Environment Agency. Future proposals for abstractions and discharges will require careful scrutiny. Management agreements are being used to secure appropriate management of riparian habitat.

In recent decades the number of otters on the site has been increasing.

Migratory fish are vulnerable to obstacles to migration (e.g. pollution, in-stream artificial structures), overfishing and damage to habitats outside the site. CCW are working closely with the authorities responsible for fisheries, wildlife, environmental protection and local planning, to address these issues.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	1.6

UK SAC data form

UK04 (SSSI/ASSI)	100.0
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Afon Tywi/ River Tywi SAC

Site details



Location of Afon Tywi/ River Tywi SAC/SCI/cSAC

Country	Wales
Unitary Authority	Caerfyrddin/ Carmarthenshire
Centroid*	SN687263
Latitude	51 55 12 N
Longitude	03 54 41 W
SAC EU code	UK0013010
Status	Designated Special Area of Conservation (SAC)
Area (ha)	363.45

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (9%)
Salt marshes. Salt pastures. Salt steppes (2%)
Shingle. Sea cliffs. Islets (7%)
Inland water bodies (standing water, running water) (62%)
Bogs. Marshes. Water fringed vegetation. Fens (6%)
Heath. Scrub. Maquis and garrigue. Phygrana (4%)
Improved grassland (3%)
Broad-leaved deciduous woodland (7%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

1103 [Twaite shad](#) *Alosa fallax*

A large spawning population of **twaite shad** *Alosa fallax* occurs in the Tywi, south Wales, and is considered to be self-sustaining. Spawning sites occur throughout the lower reaches of the river between Carmarthen and Llangadog, with most spawning occurring downstream of Llandeilo. Water quality and quantity are considered adequate to maintain this internationally vulnerable species, and there are no impassable obstructions along the migration route, though one weir at Manorafon may be an obstacle during low flow conditions. The presence of Llyn Brienne reservoir at the headwaters provides the potential to manipulate river flows to aid shad migration.

1355 [Otter](#) *Lutra lutra*

The Afon Tywi is one of the best rivers in Wales for **otters** *Lutra lutra*. There are abundant signs of otters and they are regularly seen on the river. The water quality is generally good and there is an ample supply of food. There are suitable lying-up areas along the river bank, but there few known breeding sites on the main river, although cubs have been seen.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1095 [Sea lamprey](#) *Petromyzon marinus*

1096 [Brook lamprey](#) *Lampetra planeri*

1099 [River lamprey](#) *Lampetra fluviatilis*

1102 [Allis shad](#) *Alosa alosa*

1163 [Bullhead](#) *Cottus gobio*

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199810
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
03 54 41 W	51 55 12 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation	0.26	D			

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Margaritifera margaritifera</i>	Present	-	-	-	D			
<i>Petromyzon marinus</i>	Present	-	-	-	C	B	C	C
<i>Lampetra planeri</i>	Common	-	-	-	C	C	C	C
<i>Lampetra fluviatilis</i>	Common	-	-	-	C	B	C	C
<i>Alosa alosa</i>	Rare	-	-	-	C	C	B	C
<i>Alosa fallax</i>	>10,000	-	-	-	A	A	C	A
<i>Salmo salar</i>	Common	-	-	-	D			
<i>Cottus gobio</i>	Common	-	-	-	C	B	C	C
<i>Lutra lutra</i>	Common	-	-	-	C	B	C	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	9.0
Salt marshes. Salt pastures. Salt steppes	2.0
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	7.0
Inland water bodies (standing water, running water)	62.0
Bogs. Marshes. Water fringed vegetation. Fens	6.0
Heath. Scrub. Maquis and garrigue. Phygrana	4.0
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	3.0
Other arable land	
Broad-leaved deciduous woodland	7.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Alluvium, Limestone, Mud, Sandstone, Shingle

Geomorphology & landscape:

Estuary, Floodplain, Lowland, Valley

4.2 Quality and importance

Petromyzon marinus

- for which the area is considered to support a significant presence.

Lampetra planeri

- 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.

Cottus gobio

- for which the area is considered to support a significant presence.

Lutra lutra

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

All features for which the site is designated are directly or indirectly vulnerable to deterioration in water quality: direct and diffuse pollution, particularly nutrient run-off from agricultural land; and eutrophication and increased siltation. Afforestation in the upper catchment contributes to low pH that can affect features further downstream. They are also affected by flow conditions and extremes of water temperature. This is a regulated river, with abstraction from the river for drinking water and industry. Anadromous fish are vulnerable to barriers to migration, such as weirs. All fish are vulnerable to inappropriate fishing activities and the introduction of non-indigenous species. The Tywi is one of only four rivers in England and Wales in which spawning stocks of twaite shad are known to occur. Shad are particularly vulnerable to many of these issues.

Suitable in-stream and riparian habitat is required for all features. Gravel extraction, intensive agricultural land-use, engineering works, invasive plant species and the loss of alder tree-cover through disease can lead to degradation of habitat and water quality. All features can be affected by disturbance relating to recreation and amenity access. In addition, otters require suitable terrestrial habitats to provide cover and adequate populations of prey species.

These issues are being addressed by a variety of statutory bodies that are in a position to overcome these threats through regulatory powers and partnerships with landowners, industry and other interested parties. CCW and the Environment Agency (EA) encourage owners and occupiers to carry out positive habitat management through agreements and agri-environment schemes. A SSSI Site Management Plan and a Conservation Strategy has been produced by CCW and a Site Issue Briefing has been jointly produced by EA and CCW. The EA is investigating the effects of abstractions and discharges under the review of consents process under the Habitats Regulations and the river is included in the their Asset Management Planning Process.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

River Usk/ Afon Wysg SAC

Site details



Location of River Usk/ Afon Wysg SAC/SCI/cSAC

Country	Wales
Unitary Authority	Casnewydd/ Newport; Fynwy/ Monmouthshire; Powys
Centroid*	SO301113
Latitude	51 47 45 N
Longitude	03 00 50 W
SAC EU code	UK0013007
Status	Designated Special Area of Conservation (SAC)
Area (ha)	1007.71

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (26.8%)
Salt marshes. Salt pastures. Salt steppes (4.5%)
Inland water bodies (standing water, running water) (37.9%)
Bogs. Marshes. Water fringed vegetation. Fens (3.8%)
Heath. Scrub. Maquis and garrigue. Phygrana (3.4%)
Dry grassland. Steppes (8%)
Humid grassland. Mesophile grassland (1.4%)
Improved grassland (2%)
Broad-leaved deciduous woodland (10.1%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (2.1%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

3260 [Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation](#)

Annex II species that are a primary reason for selection of this site

1095 [Sea lamprey](#) *Petromyzon marinus*

The Usk is a medium-sized catchment in south Wales, important for its population of **sea lamprey** *Petromyzon marinus*. Survey of juveniles and observation of spawning adults indicates that this species is mainly restricted to the lower reaches of the catchment. The site supports a range of Annex II fish species.

1096 [Brook lamprey](#) *Lampetra planeri*

The Usk in south Wales supports a healthy population of **brook lamprey** *Lampetra planeri* and is considered to provide exceptionally good quality habitat likely to ensure the continued survival of the species in this part of the UK.

1099 [River lamprey](#) *Lampetra fluviatilis*

The Usk in south Wales supports a healthy population of **river lamprey** *Lampetra fluviatilis* and is considered to provide exceptionally good quality habitat likely to ensure the continued survival of the species in this part of the UK. The river also supports important populations of **1096 Brook lamprey** *Lampetra planeri*, for which it is also selected.

1103 [Twaite shad](#) *Alosa fallax*

The River Usk is one of the largest rivers in south Wales, and **twaite shad** *Alosa fallax* has long been known to spawn there. The Usk is one of only four sites in the UK where a known breeding population of twaite shad occurs (the Rivers Wye and Tywi are other SAC sites). Water quality and quantity are considered favourable for this species. The main channel is largely unmodified and a variety of aquatic habitats are present, including good quality spawning gravels and deep pools used for cover by adults and fry. However, Trostrey and Rhadyr Weirs may be a barrier to shad migration under low flow conditions.

1106 [Atlantic salmon](#) *Salmo salar*

The river Usk is a river famous for its **salmon** *Salmo salar*, with a high proportion (c. 30–40%) of multi sea winter fish recorded in the rod catch. In 1999 the Usk had highest estimated egg deposition of any British river south of Cumbria, and was one of the few rivers in England and Wales to exceed its spawning target for salmon. The Usk has a mixed catchment with a largely unmodified river channel, no significant obstructions to salmon migration, good quality spawning gravels and a diversity of habitats providing excellent habitat for salmon parr. The most important tributaries for salmon spawning are included within the site boundary.

1163 [Bullhead](#) *Cottus gobio*

The Usk represents **bullhead** *Cottus gobio* in the southern part of its range in Wales. It is considered to have exceptionally high-quality habitat with good water quality, abundant cover and a variety of aquatic habitats. Bullhead are widespread throughout the Usk system.

1355 [Otter](#) *Lutra lutra*

The River Usk is an important site for **otters** *Lutra lutra* in Wales. They are believed to be using most

parts of the main river, from Newport upstream, and in recent years signs of otters have increased. In 1991 an expansion upstream of known otter ranges was recorded on several tributaries, including the Honddu, Senni and Crai. The upper Usk may have acted as a 'refuge' during the decline of the 1950s, and had subsequently acted as a 'source' population for recolonisation of south-east Wales.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1102 [Allis shad](#) *Alosa alosa*

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:**1.1 Type**

E

1.2 Site code

UK0013007

1.3 Compilation date

199803

1.4 Update

200310

1.5 Relationship with other Natura 2000 sites

U | K | 9 | 0 | 1 | 5 | 0 | 2 | 2

1.6 Respondent(s)

International Designations, JNCC, Peterborough

1.7 Site name

River Usk/ Afon Wysg

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199803
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:**2.1 Site centre location**

longitude

latitude

03 00 50 W

51 47 45 N

2.2 Site area (ha)

1007.71

2.3 Site length (km)**2.5 Administrative region**

NUTS code	Region name	% cover
UK921	Gwent	57.51%
UK914	Powys	42.49%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean
3. Ecological information:**3.1 Annex I habitats**

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Estuaries	13.9	D			

Mudflats and sandflats not covered by seawater at low tide	12.8	D			
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	3	D			
Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation	3	B	C	B	C
<i>Asperulo-Fagetum</i> beech forests	0.5	D			
<i>Tilio-Acerion</i> forests of slopes, screes and ravines	2.2	D			
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	1.3	D			
Bog woodland	0.3	D			
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	4.5	D			

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Margaritifera margaritifera</i>	Present	-	-	-	D			
<i>Austropotamobius pallipes</i>	Present	-	-	-	D			
<i>Petromyzon marinus</i>	Present	-	-	-	B	B	C	B
<i>Lampetra planeri</i>	>10,000	-	-	-	B	B	C	A
<i>Lampetra fluviatilis</i>	>10,000	-	-	-	B	A	C	A
<i>Alosa alosa</i>	Present	-	-	-	C	C	C	C
<i>Alosa fallax</i>	>10,000	-	-	-	A	B	C	A
<i>Salmo salar</i>	1000	-	-	-	A	C	C	A
<i>Cottus gobio</i>	>10,000	-	-	-	B	B	C	B
<i>Rhinolophus hipposideros</i>	Present	-	-	-	D			
<i>Lutra lutra</i>	11-50	-	-	-	C	B	C	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	26.8
Salt marshes. Salt pastures. Salt steppes	4.5
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	37.9
Bogs. Marshes. Water fringed vegetation. Fens	3.8
Heath. Scrub. Maquis and garrigue. Phygrana	3.4
Dry grassland. Steppes	8.0
Humid grassland. Mesophile grassland	1.4
Alpine and sub-alpine grassland	
Improved grassland	2.0
Other arable land	
Broad-leaved deciduous woodland	10.1
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	2.1

Habitat classes	% cover
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Alluvium, Basic, Clay, Limestone, Mud, Neutral, Nutrient-poor, Nutrient-rich, Peat, Sandstone, Sedimentary, Shingle

Geomorphology & landscape:

Coastal, Estuary, Floodplain, Island, Lowland, Upland, Valley

4.2 Quality and importance

Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation

- for which the area is considered to support a significant presence.

Petromyzon marinus

- for which this is considered to be one of the best areas in the United Kingdom.

Lampetra planeri

- for which this is considered to be one of the best areas in the United Kingdom.

Lampetra fluviatilis

- for which this is considered to be one of the best areas in the United Kingdom.

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.

Salmo salar

- for which this is considered to be one of the best areas in the United Kingdom.

Cottus gobio

- for which this is considered to be one of the best areas in the United Kingdom.

Lutra lutra

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

The River Usk is an excellent habitat for six Annex II freshwater fish. There are some concerns over long-term aquatic and riparian habitat degradation but these are being addressed in the Usk Catchment Management Plan, the Conservation Strategy, the River SSSI Management Plan, and by the Countryside Council for Wales and Environment Agency encouraging owners and occupiers to carry out positive habitat management through agreements and agri-environment schemes.

There are few barriers to migration for the anadromous species and where barriers exist, investigation is proposed to analyse for potential impacts and remedy them through multi-species fish passes. Water quality is good throughout the main river, except for localised enrichment from sewage discharges, the effects of which, along with the more significant water abstractions, are being closely monitored by the Environment Agency.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

River Wye/ Afon Gwy SAC

Site details



Location of River Wye/ Afon Gwy SAC/SCI/cSAC

Country	England/Wales
Unitary Authority	Fynwy/ Monmouthshire; Gloucestershire; Herefordshire; Powys
Centroid*	SO109369
Latitude	52 01 24 N
Longitude	03 17 59 W
SAC EU code	UK0012642
Status	Designated Special Area of Conservation (SAC)
Area (ha)	2234.89

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (9.5%)
Salt marshes. Salt pastures. Salt steppes (1.5%)
Inland water bodies (standing water, running water) (52.5%)
Bogs. Marshes. Water fringed vegetation. Fens (3.1%)
Heath. Scrub. Maquis and garrigue. Phygrana (1%)
Dry grassland. Steppes (5.3%)
Humid grassland. Mesophile grassland (2.4%)
Improved grassland (10.4%)
Broad-leaved deciduous woodland (12.3%)
Inland rocks. Scree. Sands. Permanent snow and ice (0.2%)
Other land (including towns, villages, roads, waste places, mines, industrial sites) (1.8%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

3260 [Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation](#)

The Wye, on the border of England and Wales, is a large river representative of sub-type 2. It has a geologically mixed catchment, including shales and sandstones, and there is a clear transition between the upland reaches, with characteristic bryophyte-dominated vegetation, and the lower reaches, with extensive *Ranunculus* beds. There is a varied water-crowfoot *Ranunculus* flora; stream water-crowfoot *R. penicillatus* ssp. *pseudofluitans* is abundant, with other *Ranunculus* species – including the uncommon river water-crowfoot *R. fluitans* – found locally. Other species characteristic of sub-type 2 include flowering-rush *Butomus umbellatus*, lesser water-parsnip *Berula erecta* and curled pondweed *Potamogeton crispus*. There is an exceptional range of aquatic flora in the catchment including river jelly-lichen *Collema dichotum*. The river channel is largely unmodified and includes some excellent gorges, as well as significant areas of associated woodland.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

7140 [Transition mires and quaking bogs](#)

Annex II species that are a primary reason for selection of this site

1092 [White-clawed \(or Atlantic stream\) crayfish](#) *Austropotamobius pallipes*

The Welsh River Wye system is the best site known in Wales for **white-clawed crayfish** *Austropotamobius pallipes*. The tributaries are the main haven for the species, particularly at the confluences of the main river and the Edw, Dulas Brook, Sgithwen and Clettwr Brook.

1095 [Sea lamprey](#) *Petromyzon marinus*

The Wye is an extensive river system crossing the border between England and Wales and the **sea lamprey** *Petromyzon marinus* population is found in the main stem below Llyswen. The site provides exceptionally good quality habitat for sea lamprey and supports a healthy population.

1096 [Brook lamprey](#) *Lampetra planeri*

The Wye is an extensive river system spanning the border between England and Wales and the **brook lamprey** *Lampetra planeri* population is widely distributed in its catchment. The river provides exceptionally good quality habitat for brook lamprey and supports a healthy population.

1099 [River lamprey](#) *Lampetra fluviatilis*

The Wye is an extensive river system crossing the border between England and Wales, and the **river lamprey** *Lampetra fluviatilis* population is widely distributed in the catchment. The Wye provides exceptionally good quality habitat for river lamprey and supports a healthy population.

1103 [Twaite shad](#) *Alosa fallax*

Twaite shad *Alosa fallax* have long been abundant in the Wye, an extensive river system spanning the border between England and Wales. Twaite shad often spawn at or just above the tidal limit, but in the Wye they migrate over 100 km upstream, the highest spawning site being at Builth Wells. Data held by the Environment Agency indicate that, of the three selected rivers, the largest spawning areas for this species occur on the Wye. The river has relatively good water quality, adequate flows through an unobstructed main channel and a wide range of aquatic habitats conducive to supporting this fish species. In particular, there are a number of deep pools essential for congregation before spawning.

1106 [Atlantic salmon](#) *Salmo salar*

Historically, the Wye is the most famous and productive river in Wales for **Atlantic salmon *Salmo salar***, with high-quality spawning grounds and juvenile habitat in both the main channel and tributaries; water quality in the system is generally favourable. It is also one of the most diverse river systems in the UK, with a transition from hard geology, high gradients, rapid flow fluctuations and low nutrient-content in its upper reaches, to a more nutrient-rich river with lower gradient, more stable flow and softer geology in the lowlands. The effect of river engineering work on migration and spawning has been limited, although there is a localised influence from the Elan Valley reservoirs, through inundation of spawning and nursery habitat and fluctuations in flow and water levels in the upper Wye. The most important tributaries for spawning are included in the SAC. Although in the past non-native salmon may have been released to the system, the impact of this is likely to have been minimal. The Wye salmon population is particularly notable for the very high proportion (around 75%) of multi sea winter (MSW) fish, a stock component which has declined sharply in recent years throughout the UK. This pattern has also occurred in the Wye, with a consequent marked decline in the population since the 1980s. However, the Wye salmon population is still of considerable importance in UK terms.

1163 [Bullhead](#) *Cottus gobio*

The Wye represents **bullhead *Cottus gobio*** in an extensive river system crossing the border between England and Wales. The Wye is one of the most diverse river systems in the UK, with a range of nutrient conditions and aquatic habitats and generally good water quality for fish species. The diversity of habitat types in the Wye means that it is likely to represent most of the habitat conditions in which bullhead occurs in Britain, highlighting the conservation importance of this river.

1355 [Otter](#) *Lutra lutra*

The Wye holds the densest and most well-established **otter *Lutra lutra*** population in Wales, representative of otters occurring in lowland freshwater habitats in the borders of Wales. The river has bank-side vegetation cover, abundant food supply, clean water and undisturbed areas of dense scrub suitable for breeding, making it particularly favourable as otter habitat. The population remained even during the lowest point of the UK decline, confirming that the site is particularly favourable for this species and the population likely to be highly stable.

Annex II species present as a qualifying feature, but not a primary reason for site selection

1102 [Allis shad](#) *Alosa alosa*

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:**1.1 Type**

K

1.2 Site code

UK0012642

1.3 Compilation date

199806

1.4 Update

200310

1.5 Relationship with other Natura 2000 sites

U	K	9	0	1	4	1	1	1
U	K	9	0	1	5	0	2	2

1.6 Respondent(s)

International Designations, JNCC, Peterborough

1.7 Site name

River Wye/ Afon Gwy

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	199806
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200504

2. Site location:**2.1 Site centre location**

longitude

latitude

03 17 59 W

52 01 24 N

2.2 Site area (ha)

2234.89

2.3 Site length (km)**2.5 Administrative region**

NUTS code	Region name	% cover
UK612	Gloucestershire	4.92%
UK921	Gwent	9.88%
UK711	Hereford and Worcester	38.20%
UK914	Powys	46.96%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Estuaries	4.3	D			
Mudflats and sandflats not covered by seawater at low tide	3	D			
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	0.8	D			
Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation	5.3	A	B	B	A
European dry heaths	0	D			
Transition mires and quaking bogs	0.1	C	C	A	C
Caves not open to the public	0	D			
<i>Tilio-Acerion</i> forests of slopes, screes and ravines	2.8	D			
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	0.7	D			
Bog woodland	0.4	D			
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	6.1	D			

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Margaritifera margaritifera</i>	Present	-	-	-	D			
<i>Austropotamobius pallipes</i>	Present	-	-	-	C	C	C	B
<i>Petromyzon marinus</i>	Common	-	-	-	C	A	C	B
<i>Lampetra planeri</i>	Common	-	-	-	C	B	C	B
<i>Lampetra fluviatilis</i>	Common	-	-	-	C	A	C	B
<i>Alosa alosa</i>	Rare	-	-	-	C	C	C	C
<i>Alosa fallax</i>	>10,000	-	-	-	A	B	C	A
<i>Salmo salar</i>	1001-10,000	-	-	-	C	C	C	B
<i>Cottus gobio</i>	>10,000	-	-	-	B	B	C	B
<i>Rhinolophus hipposideros</i>	Present	-	-	-	D			
<i>Rhinolophus ferrumequinum</i>	Present	-	-	-	D			
<i>Lutra lutra</i>	Present	-	-	-	C	A	C	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	9.5
Salt marshes. Salt pastures. Salt steppes	1.5
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	

Habitat classes	% cover
Inland water bodies (standing water, running water)	52.5
Bogs. Marshes. Water fringed vegetation. Fens	3.1
Heath. Scrub. Maquis and garrigue. Phygrana	1.0
Dry grassland. Steppes	5.3
Humid grassland. Mesophile grassland	2.4
Alpine and sub-alpine grassland	
Improved grassland	10.4
Other arable land	
Broad-leaved deciduous woodland	12.3
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	0.2
Other land (including towns, villages, roads, waste places, mines, industrial sites)	1.8
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Alluvium, Basic, Clay, Limestone, Mud, Neutral, Nutrient-poor, Nutrient-rich, Peat, Sand, Sandstone, Sedimentary, Shingle

Geomorphology & landscape:

Caves, Coastal, Crags/ledges, Estuary, Floodplain, Island, Lowland, Upland, Valley

4.2 Quality and importance

Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

- for which this is considered to be one of the best areas in the United Kingdom.

Transition mires and quaking bogs

- for which the area is considered to support a significant presence.

Austropotamobius pallipes

- for which this is considered to be one of the best areas in the United Kingdom.

Petromyzon marinus

- for which this is considered to be one of the best areas in the United Kingdom.

Lampetra planeri

- for which this is considered to be one of the best areas in the United Kingdom.

Lampetra fluviatilis

- for which this is considered to be one of the best areas in the United Kingdom.

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.

Salmo salar

- for which this is considered to be one of the best areas in the United Kingdom.

Cottus gobio

- for which this is considered to be one of the best areas in the United Kingdom.

Lutra lutra

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

Water quality impacts arising from changing agricultural land-use within the catchment are having direct and indirect effects on the SAC interests through effects of diffuse pollution such as nutrient run-off and increased siltation. English Nature and the Countryside Council for Wales are seeking to address such issues through improved targeting of existing and new agri-environment schemes and through improvements in compliance with agricultural Codes of Practice.

Water quality is also affected by synthetic pyrethroid sheep-dips and by point-source discharges within the catchment. The impact of sewage treatment works on the cSAC is being addressed through the Asset Management Plan process and review under the Habitats Regulations. Loss of riparian habitat is occurring as a result of changes in agricultural land-use practices and other factors, including riverside development and the loss of alder tree-cover through disease. These impacts and concerns over water quality will be identified and actions recommended within the joint English Nature/Environment Agency/Countryside Council for Wales conservation strategy for the river.

Fishing activities are implicated in the decline of the salmon; initiatives such as the Wye Salmon Action Plan will help to address this issue.

There is increasing demand for abstraction from the river for agriculture and potable water. The impact of this is still being investigated by the Environment Agency, but maintenance of water levels and flow will be addressed under the review of consents under the Habitats Regulations.

Demand for increased recreational activities is a source of potential concern for the future. Regularisation of the functions of the competent authorities, currently being sought, should reduce the risk of damage to the cSAC as a result of developments for such activities.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK00 (N/A)	0.7
UK04 (SSSI/ASSI)	99.3

Yerbeston Tops SAC

Site details



Location of Yerbeston Tops SAC/SCI/cSAC

Country	Wales
Unitary Authority	Penfro/ Pembrokeshire
Centroid*	SN057099
Latitude	51 45 17 N
Longitude	04 49 00 W
SAC EU code	UK0030305
Status	Designated Special Area of Conservation (SAC)
Area (ha)	18.81

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

General site character

Bogs. Marshes. Water fringed vegetation. Fens (3.7%)
Heath. Scrub. Maquis and garrigue. Phygrana (9.1%)
Humid grassland. Mesophile grassland (25.7%)
Improved grassland (9.6%)
Broad-leaved deciduous woodland (51.9%)

[Boundary map](#) and associated biodiversity information on the NBN Gateway.

[Natura 2000 data form](#) for this site as submitted to Europe (PDF format, size 30kb).

Note:

When undertaking an appropriate assessment of impacts at a site, **all** features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

Not applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

6410 [Molinia meadows on calcareous, peaty or clayey-silt-laden soils \(*Molinion caeruleae*\)](#)

Annex II species that are a primary reason for selection of this site

1065 [Marsh fritillary butterfly](#) *Euphydryas* (*Eurodryas*, *Hypodryas*) *aurinia*

This isolated metapopulation in southern Pembrokeshire supports over 1500 adult **marsh fritillaries** *Euphydryas aurinia* and is an important outlier for the conservation of the species in west Wales.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200010
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200412

2. Site location:

2.1 Site centre location

longitude	latitude
04 49 00 W	51 45 17 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK912	Dyfed	100.00%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	4.96	C	C	B	C

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				
<i>Euphrydryas (Eurodryas, Hypodryas) aurinia</i>	1001-10,000	-	-	-	C	B	C	B

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	3.7
Heath. Scrub. Maquis and garrigue. Phygrana	9.1
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	25.7
Alpine and sub-alpine grassland	
Improved grassland	9.6
Other arable land	
Broad-leaved deciduous woodland	51.9
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Clay, Nutrient-poor, Sedimentary

Geomorphology & landscape:

Lowland, Valley

4.2 Quality and importance

Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)

- for which the area is considered to support a significant presence.

Euphrydryas (Eurodryas, Hypodryas) aurinia

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

A significant proportion of the site is currently in an unfavourable condition for marsh fritillary butterfly *Eurodryas aurina*. The decline in habitat suitability has coincided with the abandonment of grazing on part of the site, and a change of grazing from beef cattle to dairy cattle on the remainder.

The site is now undergoing recovery management, with financial assistance from CCW. This involves the cutting and removal of rank vegetation and scrub, and the delivery of a beef cattle and pony grazing regime.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

Appendix B Strategic Growth Area: Carmarthen Assessment of Potential Effects on the European Site Network



Carmarthenshire County Council

**Local Development Plan Habitats Regulations
Assessment**

Growth Area 1: Carmarthen

**Assessment of Potential Effects on the European
Site Network**

November 2014

Project:	Local Development Plan Habitats Regulations Assessment		
Client:	Carmarthenshire County Council	Project Number:	B1240150
Document Title:	Growth Area 1: Carmarthen Assessment of Potential Effects on European Site Network		
Ref. No:	B1240150\004\R0		

Originated by		Checked by	Reviewed by	
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	Wendy Bateman			[omitted from published version]
DATE	Nov 2014	Document status FINAL		

REVISION	NAME	NAME	NAME	
Approved by	NAME	As Project Manager I confirm that the above document(s) have been subjected to Jacobs' Check and Review procedure and that I approve them for issue		INITIALS
DATE		Document status		

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Approved by	NAME	As Project Manager I confirm that the above document(s) have been subjected to Jacobs' Check and Review procedure and that I approve them for issue		INITIALS
DATE		Document status		

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1 Introduction

1.1 Purpose of this report

This report provides supporting evidence to the main Habitats Regulations Appraisal for the Local Development Plan (LDP). The Preferred Strategy highlighted three Growth Areas in Carmarthenshire, Carmarthen, Llanelli and Ammanford/ Cross Hands and it is these areas that have been identified in the Preferred Strategy to receive the majority of the site allocation.

The objective of this report is to record the assessment of the effects of the LDP, following Examination and Matters Arising Changes, and in particular the site allocation for the Carmarthen Growth Area on the European Sites. The HRA report supporting the deposit draft LDP indicated that the following European Sites could be affected:

- *River Tywi Special Area of Conservation (SAC); and*
- *Carmarthen Bay and Estuaries European Marine Site (CBEEMS).*

The assessment in this report only considers those impacts over which the LDP has any influence and is focused on the potential effects of the site allocation individually and collectively.

The in-combination assessment has focussed on those projects or plans that have a potential effect on the European Site network together with the proposed Carmarthen site allocation. The deposit draft HRA indicated that the following projects/ plans may result in a significant effect on the European site network in the Carmarthen area:

- *Regional Transport Plan – South West Wales Integrated Transport Consortium (SWWITCH) Provisional Regional Transport Plan for South West Wales December 2008.*

2.1 Summary of Screening Stage Methodology

The previously published HRA Screening Report (Jacobs 2009):

- *Highlighted all the European Sites within and outside the Local Development Plan area;*
- *Identified the vulnerabilities and sensitivities of the European Sites;*
- *Identified the potential impacts on the Sites that could be influenced by the Preferred Strategy; and,*
- *Highlighted other Plans and Policies that may in-combination with the Carmarthenshire deposit draft LDP have an effect on the European Sites.*

2.2 Summary of the Methodology for deposit draft HRA

To assess the potential effects of the Carmarthen site allocation on the European Site network the HRA follows the principles set out in the flow chart shown below in Plate 2-A.

The site allocation process has been steered by the results and recommendations of the previously published HRA Screening Report (Jacobs 2009) and been carried out in consultation with the County Ecologist and the Countryside Council for Wales (now part of Natural Resources Wales).

Each site was assessed individually and copies of the completed proforma for each site are contained in Appendix B. Each site was assessed with regard to any potential impacts they may effect upon the European Site network via spatial location e.g. land take and fragmentation, and highlighted the potential impacts that were non-spatial e.g. changes in water quality as a result of sewage discharge.

The results of that initial assessment highlighted key potential impacts resulting from the proposed site allocation and any areas where mitigation could be implemented through the deposit draft LDP.

The other projects and plans that were highlighted by the HRA Screening Report as potentially affecting European Sites in-combination with the deposit draft LDP were reviewed and those that had the potential to affect the River Tywi SAC and Carmarthen Bay and Estuaries European Marine Site have been included within this HRA.

The site allocation (with any mitigation) was assessed alone and in-combination against the conservation objectives for each of the European Sites.

2.3 This report

This report has been updated to reflect the changes made to the LDP following Examination and Matters Arising Changes. This has included a review of the assessment in respect of the changes using the methodology set out in section 2.2.

2.4 Sources of Information

The following sources of baseline information have been used to inform the assessment.

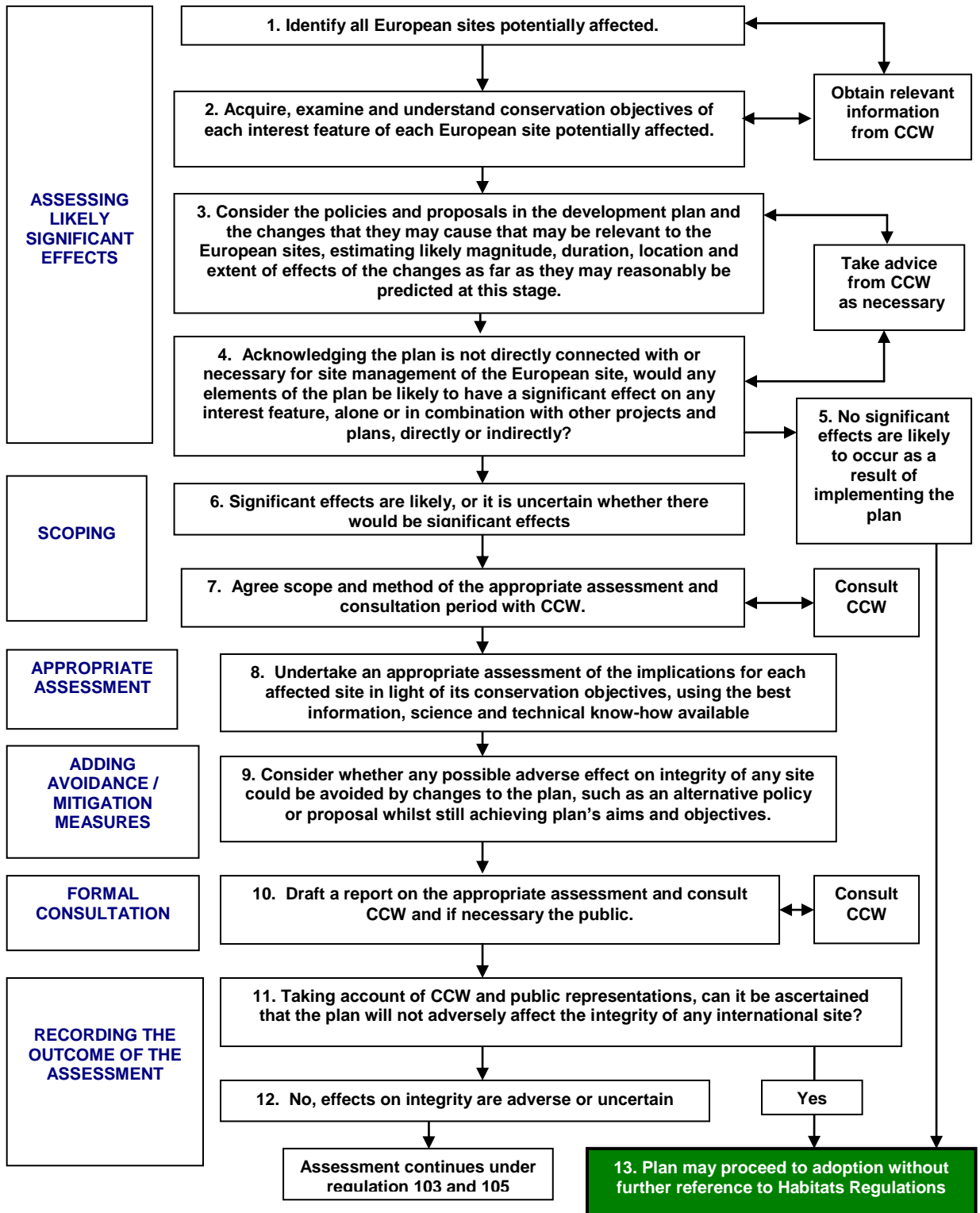
- *Carmarthenshire LDP Site Allocation – GIS data from Forward Planning.*
- *Countryside Council for Wales Carmarthen Bay and Estuaries European Marine Site comprising: Carmarthen Bay and Estuaries Special Area of Conservation, Carmarthen Bay Special Protection Area, Burry Inlet Protection Area & Ramsar Site. Advice provided by the Countryside Council for Wales in fulfilment of regulation 33 of the Conservation (Natural Habitats, &c.) Regulations 1994, February 2009.*
- *Countryside Council for Wales Core Management Plan River Tywi SAC (CCW, 2008).*
- *Catchment Abstraction Management Strategies (CAMS) for The Tywi, Taf & Gwendraeth Rivers (Environment Agency Wales, 2006).*

2.5 Use of Guidance

The assessment methodology is based upon that stated in the report Draft Guidance: The Assessment of Development Plans in Wales under the Provisions of the Habitats Regulations (David Tyldesley and Associates and the Welsh Assembly Government October 2006 and 2009 Update) but is also influenced by the following guidance;

- *Technical Advice Note 5: Nature Conservation and Planning, (Welsh Assembly Government (WAG 2009);*
- *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (European Commission, 2000); and,*
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC" (European Commission, 2002).*

Plate 2-A: Flow chart identifying the methodological steps (from Tyldesley 2006) Note that CCW on this chart has become Natural Resources Wales (NRW)



3 The European Sites

The following chapter summarises the European Sites that may potentially be impacted upon by the Carmarthen growth area site allocations. Full citations for each named site are provided in Volume 3 Appendix A.

3.1 River Tywi SAC

Water flows within the River Tywi are regulated by releases from Llyn Brianne reservoir 20km north of the SAC boundary. The river then flows in a broadly south-westerly direction to Llandeilo, and then westerly through Carmarthen to outfall into Carmarthen Bay at Llansteffan. The Afon Tywi SAC boundary terminates in the tidal reaches just south of Carmarthen, where it enters the Carmarthen Bay & Estuaries SAC.

The qualifying features for this site are given in Table 3-1 with information on the existing condition of those qualifying features and the conservation objectives assigned to them. The table shows that although the river is one of the best in Wales for otters with abundant food, good quality water and a “favourable” condition (CCW, 2008), the “unfavourable” status of some other qualifying features of the River Tywi SAC are results from a precautionary assessment of feature distribution and abundance, and from the presence of adverse factors, in particular flow depletion & physical barriers to migration of aquatic species.

The impact of flow depletion downstream of major abstractions was assessed in the Environment Agency’s Review of Consents process. The outputs of their hydraulic modelling suggested that changes to water depth and water velocities occurring as a result of the abstraction at Capel Dewi were unlikely to impact upon the qualifying features of the River Tywi SAC (CCW, 2008).

Table 3-1: River Tywi SAC

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
Twaité shad <i>Allosa fallax</i> Allis shad <i>Alosa alosa</i>	Unfavourable: Unclassified 2004	To reach favourable condition the features must meet the overall river objectives plus: <ul style="list-style-type: none"> • The population of the feature in the SAC is stable or increasing over the long term. • The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There is, and will probably continue to be, a sufficiently large habitat to maintain the feature’s population in the SAC on a long-term basis.
Otter <i>Lutra lutra</i>	Favourable 2004	<ul style="list-style-type: none"> • The population of otters in the SAC is stable or increasing over the long term and reflects the natural carrying capacity of the habitat within the SAC, as determined by natural levels of prey abundance and associated territorial behaviour. • The natural range of otters in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • The safe movement and dispersal of individuals around the SAC is facilitated by

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
		the provision, where necessary, of suitable riparian habitat, and underpasses, ledges, fencing etc. at road bridges and other artificial barriers.
Sea lamprey <i>Petromyzon marinus</i> Bullhead <i>Cottus gobio</i>	Unfavourable: Unclassified 2004	To reach favourable condition the features must meet the overall river objectives plus: <ul style="list-style-type: none"> • The population of the feature in the SAC is stable or increasing over the long term. • The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.
Brook lamprey <i>Lampetra planeri</i> River lamprey <i>Lampetra fluviatilis</i>	Favourable 2004	<ul style="list-style-type: none"> • The population of the feature in the SAC is stable or increasing over the long term. • The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.

3.2 Carmarthen Bay and Estuaries European Marine Site (EMS)

The Carmarthen Bay and Estuaries European Marine Site (CBEEMS) is comprised of the following Natura 2000 sites:

- *Carmarthen Bay and Estuaries Special Area of Conservation:*
- *Carmarthen Bay Special Protection Area; and*
- *Burry Inlet Special Protection Area and RAMSAR.*

Carmarthen Bay and Estuaries SAC shares the same boundary as the EMS, whilst the Burry Inlet and Carmarthen Bay SPAs are wholly encompassed within the EMS boundary.

Table 3-2, Table 3-3, and Table 3-4 summarise the qualifying features each of the sites, together with their individual conservation objectives and most recent condition assessment.

Table 3-2: Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
Sandbanks which are slightly covered by sea water all the time Estuaries Mudflats and Sandflats not covered by seawater at low tide Large shallow inlets	Unknown	<ul style="list-style-type: none"> • The conservation objective for these habitat features are to maintain at favourable conservation status; their natural range and area covered; the structures and functions necessary for their long-term maintenance; and the conservation status of their typical species on a long-term basis.

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
and bays <i>Salicornia</i> and other annuals colonising mud and sand Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>)		
Twaite shad <i>Allosa fallax</i> Allis shad <i>Alosa alosa</i> Otter <i>Lutra lutra</i> Sea lamprey <i>Petromyzon marinus</i> River lamprey <i>Lampetra fluviatilis</i>	Unknown	<ul style="list-style-type: none"> The conservation objective for the species features is to maintain at favourable conservation status; their long-term population viability; natural range and the structure and function of their habitat within the site.

Table 3-3: Bae Caerfyrddin / Carmarthen Bay SPA

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
Common scoter	Favourable: Unclassified	<ul style="list-style-type: none"> The numbers of common scoter bird species are stable or increasing. The abundance and distribution of suitable prey are sufficient and appropriate to support population. All SPA birds are allowed to inhabit their feeding grounds and resting areas with minimum disturbance, and are allowed to move unhindered between them. All states of the Conservation Objectives for the supporting habitats and species, subject to natural processes, are fulfilled and maintained in the long-term.

Table 3-4: Burry Inlet SPA and RAMSAR

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
Northern Pintail Northern shoveler Teal Wigeon Dunlin Red knot Oystercatcher Curlew Grey plover	Unknown	<ul style="list-style-type: none"> The numbers of all SPA bird species are stable or increasing. The abundance and distribution of suitable prey are sufficient and appropriate to support population. All SPA birds are allowed to inhabit their feeding grounds and resting areas with minimum disturbance, and are allowed to move unhindered between them.

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
Shelduck Redshank Intertidal mud- and sand- flats Saltmarsh Noteworthy flora Noteworthy fauna		<ul style="list-style-type: none">• All states of the Conservation Objectives for the supporting habitats and species, subject to natural processes, are fulfilled and maintained in the long-term.

4.1 Introduction

Twenty four proposed site allocations were assessed in Growth Area 1 Carmarthen for potential impacts on the River Tywi SAC and Carmarthen Bay and Estuaries EMS sites. Allocation GA1/H20 has not been included as the site is already completed. Figure 2 (Volume 2) shows the location of the proposed site allocations in relation to the European Sites. One site is allocated for Employment, two for Mixed Use and nineteen for Residential use. Each site was assessed individually and all of the reports are located within Appendix E. A summary of results from these assessments is given in Table 3-5.

Water quality and supply is of high importance in both of the assessed European Sites, in terms of maintaining good condition themselves and in order to meet the performance indicators to reach “favourable status” for the conservation objectives set for each of the qualifying features. Development can impact upon the aquatic environment in a number of ways and this was discussed in full in the initial screening document for the Carmarthenshire Preferred Strategy HRA (Jacobs, 2009). Disturbance and fragmentation of habitats can occur impacting upon species utilising the aquatic environment, including fish and otters, while construction works can transfer non-native invasive species which have negative impacts upon existing (and potentially legally protected) habitats.

A “Planning and Development Brief” for the Mixed Use site, known as West Carmarthen was produced in September 2010 by Nathaniel Lichfield & Partners and planning applications for six of the nineteen residential site allocations (total of 221 units) are at varying stages of determination.

Table 3-5 Carmarthen Growth Area – Site Allocations.

■ indicates a potential impact on either of the River Tywi SAC or the Carmarthen Bay & Estuaries EMS. *Planning permissions sought/refused/gained.

Site Allocation Reference	No of Units	Land Take	Disturbance	Air Quality	Fragmentation	Non-native Invasive Species	Water Quality/ Resource
GA1/H1 Penymorfa	180						■
GA1/H2 Adjacent Bryn Meurig	43						■
GA1/H3 Mounthill *	80 (48 complete)						■
GA1/H4 Rhiw Babbell	14						■
GA1/H5 Former Hospital*	12						■
GA1/H6 Former BT Building*	14						■
GA1/H7 Former DJK Buildings*	14						■
GA1/H8 Former Health Authority Buildings*	8						■
GA1/H9 Parc Thomas*	9						■

Site Allocation Reference	No of Units	Land Take	Disturbance	Air Quality	Fragmentation	Non-native Invasive Species	Water Quality/ Resource
GA1/H10 Parc y Delyn*	35						■
GA1/H11 Springfield Road	30						■
GA1/H12 Land South of Pant Glas	15						■
GA1/H13 Bronwydd Road South*	45 (2 complete)						■
GA1/H14 Former Coach Depot	9						■
GA1/H15 Former MAFF Depot	18		■				■
GA1/H16 Ashgrove	20						■
GA1/H17 College Road Extension*	153 (88 complete)						■
GA1/H18 Penybont Farm*	16 (7 complete)		■			■	■
GA1/H19 Bronwydd Road North*	9 (3 complete)						■
GA1/H20 College Road*	14 complete						
GA1/H21 Rhuw Babell extension	16						
GA1/E1 Cillefwr	4.38ha		■			■	■
GA1/MU1 West Carmarthen*	5.45ha & 1100		■		■	■	■
GA1/MU2 Pibwrlwyd	15.50 ha						■

The following sections assess the deposit draft LDP site allocations for the Carmarthen growth area in-combination i.e. potential impacts upon the European Sites if all the developments were built at the same time.

4.2 River Tywi SAC

Table 3-6 summarises the general potential impacts identified in the initial screening HRA document (Jacobs, 2009) on the qualifying features of the River Tywi SAC. Potential impacts include those concerning water quality and supply, land take/fragmentation of habitats and the establishment of invasive non-native species.

The aquatic environment is of up most importance to the qualifying features of the River Tywi with the fish species and otter being totally reliant on the favourable maintenance of good quality and supply of water with connectivity through the wider area.

Table 3-6 River Tywi – Potential Impacts of the GA2 Carmarthen Site Allocations

Potential impacts	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
Air Quality	N/A	N/A	No
Water Quality	Turbidity, quality and temperature of water can impact fish and subsequently otters as a major food resource.	Fish Species Otter	Potential
Water Supply and Hydrology	Habitat loss indirectly - changes in hydrology can alter aquatic habitat substrates reducing feeding and breeding opportunities.	Fish Species Otter	Potential
Disturbance	Development on the Tawelan Brook and other tributary water courses may disturb otters	Otter	Potential
Fragmentation	Development has the potential to bisect and/or fragment the Tawelan Brook; a tributary of the River Tywi.	Otter	Potential

Table 3-7 and Table 3-8 itemise specific potential impacts on fish species and otters respectively, detailing the likelihood of these impacts occurring and whether mitigation could reduce any negative consequences for the conservation objective for these species.

4.2.1 Non Spatial Impacts

(i) Water Quality and Resource

Water quality and supply is imperative for fish survival and indirectly for otters, as a significant food supply. Appropriate policies at the LDP level can reduce potential impacts upon water quality and therefore reduce any effects on the conservation objectives of dependant qualifying species of the protected sites. Potential impacts may be reduced by ensuring discharges to tributaries, or the main river Tywi watercourse itself, are of a suitable quality so as to not affect wildlife in the area, or downstream. Sewage treatment works in Carmarthen and Parc y Splott have undergone recent upgrading which providing a capacity to treat increased foul discharge and Llyn Brienne upstream of the river can regulate flows for the benefit of nature conservation as well as water resources.

Table 3-7 River Tywi SAC Qualifying Species - Fish species

LDP Activity	Potential Impact	Mitigation through the LDP Process	Impact on Conservation Objectives with mitigation
Discharges to foul	Water quality degradation resulting in altered behaviour, survival and breeding success	Policies in place to ensure all sewage and water discharges are suitably treated before release into the River Tywi. Phased development will reduce any cumulative impact.	None
Surface water discharge	Water quality degradation resulting in altered behaviour, survival and breeding success	Policies in place to ensure SUDS and surface water separation have attenuation prior to discharge. Phased development will reduce any cumulative impact.	None

LDP Activity	Potential Impact	Mitigation through the LDP Process	Impact on Conservation Objectives with mitigation
Abstraction	Water quality degradation resulting in altered behaviour, survival and breeding success	The Tywi, Taf & Gwendraeth CAMS (EA, 2006) state that water is available in the Tywi. Policies need to be in place to ensure any future abstraction is not to the detriment of the river or its conservation objectives. Phased development will reduce any cumulative impact.	None

4.2.2 Spatial Impacts

(i) Disturbance and Fragmentation

Development adjacent to the River Tywi or its tributaries could have significant disturbance and connectivity impacts upon otters in the area. Otters are known to use tributaries of the River Tywi for maternity holts, potentially including the Tawelan Brook and Afon Gwili which are either immediately adjacent to (GA1/H15, H18 & E1) or indeed bisected (GA1/MU1) by current site allocation. These developments will require targeted, project specific mitigation to ensure the continued favourable condition of the River Tywi’s otter population.

Phased development will reduce the scale of any negative impact of the site allocations assessed here and future developments should be staggered. A number of residential site allocations already have been provided planning consent and some of these developments have been undertaken.

Table 3-8 River Tywi SAC Qualifying Species - Otter

LDP Activity	Potential Impact	Mitigation	Impact on Conservation Objectives with mitigation
GA1/MU1 H15; H18; E1.	Disturbance of otters on the Afon Gwili and Tawelan Brook	Project specific	Slight negative – objectives to maintain favourable conservation status of otters long-term population viability, natural range and the structure and function of their habitat within the site may be impeded by the listed site allocations. Phased development will reduce any cumulative impact.
GA1/MU1; H15; H18; E1.	Fragmentation of otter territory	Project specific	Slight negative – objectives to maintain favourable conservation status of otters long-term population viability, natural range and the structure and function of their habitat within the site may be impeded by the listed site allocations. Phased development will reduce any cumulative impact.

4.3 Carmarthen Bay and Estuaries EMS

Table 3-9 summarises the general potential impacts identified in the initial screening HRA document (Jacobs, 2009) on the qualifying features of the Carmarthen Bay and Estuaries EMS. Potential impacts include water quality and supply, and the establishment of invasive non-native species.

The River Tywi provides an aquatic link between the site allocations assessed here and the Carmarthen Bay and Estuaries EMS. Any discharge originating in the River Tywi will be transported to Carmarthen Bay (although in a more diluted state). The river can also act as a vector, transferring invasive and non-native species.

Table 3-9 Carmarthen Bay and Estuaries EMS – Potential Impacts of the LDP Carmarthen Site Allocations

Potential impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
Air Quality	N/A	N/A	No
Water Quality	Habitat loss. Parc y Splott STW is situated downstream of the site allocations, prior to Carmarthen Bay & Estuaries EMS boundary. Discharge quality dependent on this STW.	Fish Otter Birds Habitats (6 types)	Potential
Water Supply and Hydrology	Habitat loss Loss of food resource	Fish Otter Birds Habitats (6 types)	Potential
Disturbance	N/A	N/A	No
Land take / fragmentation	N/A	N/A	No
Non-native and Invasive Species	Disturbance of areas containing such species could allow access to watercourses and therefore permit their dispersal.	Habitats (6 types)	Potential

Table 3-10, Table 3-11, Table 3-12 and Table 3-13 itemise specific potential impacts on habitats, bird species, fish species and otters, respectively, detailing the likelihood of these impacts occurring and whether mitigation could reduce any negative consequences for the conservation objective for these species.

4.3.1 Water Quality and Supply

Water supply and quality is a vital performance indicator when considering the conservation objectives for the four types of qualifying species and the relationships between them.

Changes in water supply to habitats can cause changes in the hydrological regime which provide potential impacts upon the structure of habitats resulting in changes in the vegetation types that form on its substrates and breeding substrate for fish species. Changes in water quality can impact upon the invertebrate assemblage upon which birds feed and the survival of aquatic species that form the basis of the otter’s diet.

The following points lead to the conclusion that water quality and supply are unlikely to provide potential impacts upon the conservation objectives of the qualifying features of the CBEEMS. These are:

- The current ecological status of the River Tywi is classed as “Good” (Environment Agency website) and the Carmarthen Bay Estuary has a WQC class A;
- The regional CAMS report state that “water is available” in the River Tywi;
- Releases from Llyn Brienne can be used to regulate water flow through the River Tywi and ultimately CBEEMS; and,
- Parc y Splotts water treatment system (Secondary Activated Sludge system) south of Carmarthen in Johnstown, has been “recently upgraded” (Carmarthenshire County Council website).

Table 3-10 Carmarthen Bay and Estuaries EMS Qualifying Features - Habitats

LDP Activity	Potential Impact on Qualifying Features	Likelihood of Occurrence	Mitigation	Impact on Conservation Objectives with Mitigation in Place
Site Allocation	Establishment/Colonisation of invasive non-native species on protected habitats	Possible	Yes- project specific targeted treatment and prevention of spread of non-native and invasive species	None
Site Allocation – discharge and water supply	Change in substrate structure and impacting upon vegetation type	Unlikely	Policies to ensure abstraction/discharges in the River Tywi do not reduce water supply or quality into that of the estuary. This may include use of compensation flows from Llyn Brienne.	None

Table 3-11 Carmarthen Bay and Estuaries EMS Qualifying Features – Bird species

LDP Activity	Potential Impact on Qualifying Features	Likelihood of Occurrence	Mitigation	Impact on Conservation Objectives with mitigation in place
Site allocation – All discharges to foul	Water quality could impact amount and assemblage of invertebrates - the birds food source	Possible	The LDP also includes a number of policies that will also mitigate any potential affects on the water quality of receiving watercourses, and these include: <ul style="list-style-type: none"> • GP1 Sustainability and High Quality Design. • GP4 Infrastructure and New Development. • EP1 Water Quality and Resource • EP2 Pollution • EP3 Sustainable Drainage. 	None

Table 3-12 Carmarthen Bay and Estuaries EMS Qualifying Features - Fish species

LDP Activity	Potential Impact on Qualifying Features	Likelihood of Occurrence	Mitigation	Impact on Conservation Objectives with mitigation in place
Site allocation - discharges to foul	Habitat loss Loss of food resources	Possible	LDP policies ensure sewage water treatment systems have the capacity to allow for extra development before they are built.	None
Site allocation - surface water discharge		Possible	LDP policies ensure SUDS and surface water separation have attenuation prior to discharge	None
Site allocation - abstraction		Unlikely	Review of Consents of abstraction at Capel Dewi and regional CAMS state “water available”. Llyn Brienne available to regulate and compensate flow The LDP also includes a number of policies that will also mitigate any potential effects on the water resource requirements, and these include: <ul style="list-style-type: none"> • GP1 Sustainability and High Quality Design. • GP4 Infrastructure and New Development. • EP1 Water Quality and Resource • EP2 Pollution 	None

Table 3-13 Carmarthen Bay and Estuaries EMS Qualifying Features - Otter

LDP Activity	Potential Impact on Qualifying Features	Likelihood of Occurrence	Mitigation	Impact on Conservation Objectives with Mitigation in Place
Site allocation – All discharges to foul	Water quality degradation resulting in decline in food resource	Possible	Yes – appropriate water capture and treatment before discharge into the River Tywi/Carmarthen Bay Estuary. The LDP also includes a number of policies that will also mitigate any potential effects on the water quality of receiving watercourses, and these include: <ul style="list-style-type: none"> • GP1 Sustainability and High Quality Design. • GP4 Infrastructure and New Development. • EP1 Water Quality and Resource • EP2 Pollution • EP3 Sustainable Drainage. 	None with appropriate water treatment upstream.

4.3.2 Non Native Species

Procedures specific to individual projects can be put in place to prevent the spread of non-native invasive species through the river or estuarine environment.

4.4 In-combination Impacts of the GA1 Site Allocation with Other Plans

The Carmarthen West Link Road is located within the deposit draft LDP site allocation GA1/MU1 and will cross the Tawelan Brook, a tributary of the River Tywi SAC. The potential impact of both the proposed road and the site allocation are considered to be related to the disturbance of otter and fragmentation of otter habitat.

The Development Brief (Nathaniel Lichfield & Partners 2010) for the site and link road indicates that the Tawelan corridor will be protected from disturbance and landscape will remain largely un-fragmented. Although it is considered that the road scheme in-combination with the LDP allocation GA1/MU1 is unlikely to result in a likely significant effect on the SAC, the HRA should be deferred to the project level to ensure that any detailed mitigation is designed and implemented.

The proposed GA1 Carmarthen site allocation will have no effect (alone or in combination) on the integrity of the conservation objectives of the River Tywi or CBEEMS, provided site allocations and policies are in place to protect and enhance the European Sites.

Individual project level management issues and actions are the most important factor in maintaining the designated features in a favourable condition (e.g. maintaining water quality and flow). These site level management actions, coupled with the mitigation measures provided by the LDP policies, are assessed as being sufficient to ensure that there will not be a significant effect on the integrity of the European Sites.

This strategic plan level HRA does not obviate the need for further HRA at more detailed planning levels and it is recommended that this strategic plan level work informs and supports project specific HRA where it is required.

- European Commission (2000) Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission, Brussels.
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- Carmarthenshire County Council (2009) Carmarthenshire Priorities for Transport 2009-2014;
- Carmarthenshire County Council (unknown date) Carmarthenshire Connexions – A strategy for future prosperity 2005-2015; Action Plan 2006/7
- Carmarthenshire Regeneration Partnership (unknown date) A Local Development Strategy for Rural Carmarthenshire – Rural Development Plan 2007-2013;
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South West Wales Tourism Partnership (2004) Open All Year – A Tourism Strategy for South West Wales 2004-2008

SWWITCH (2008) Provisional Regional Transport Plan For South West Wales

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Welsh Assembly Government (2007) Micro-generation Action Plan for Wales ;

Welsh Assembly Government (2008) Peoples, Places, Futures – The Wales Spatial Plan Update 2008;

Welsh Assembly Government (2008) Rural Development Plan for Wales 2007-2013

Welsh Assembly Government (2009) National Transport Plan

Welsh Assembly Government (2009) Technical Advice Note 16: Sport, Recreation and Open Space (2009);

Welsh Assembly Government (2009) Technical Advice Note 5: Nature Conservation and Planning

Welsh Assembly Government (2009b) National Transport Plan Habitats Regulations Assessment Screening Report – Consultation version September 2009

Appendix C Strategic Growth Area: Llanelli Assessment of Potential Effects on the European Site Network





Carmarthenshire County Council

Local Development Plan

Habitats Regulations Assessment

**Growth Area 2: Llanelli, Burry Port and Pembrey -
Assessment of Potential Effects on the European
Site Network**

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1.1 Purpose of this report

This report provides supporting evidence to the main Habitats Regulations Appraisal for the Local Development Plan (LDP). The Preferred Strategy highlighted three Growth Areas in Carmarthenshire: Carmarthen; Llanelli/Burry Port; and Ammanford/Cross Hands and it is these areas that have been identified in the Preferred Strategy to receive the majority of the site allocation.

The objective of this report is to record the assessment of the effects of the LDP, following Examination and Matters Arising Changes, and in particular the site allocation for the Llanelli and Burry Port/Pembrey Growth Area on the Carmarthen Bay and Estuaries European Marine Site (CBEEMS). The HRA report supporting the deposit draft LDP indicated that the following European Sites could be affected (see Vol. 2 Figure 1):

- *Carmarthen Bay and Estuaries Special Area of Conservation (SAC);*
- *Carmarthen Bay Special Protection Area (SPA); and,*
- *Burry Inlet SPA / Ramsar.*

The assessment in this report only considers those impacts over which the LDP has any influence and is focused on the potential effects of the site allocation in the Llanelli and Burry Port area both individually and collectively.

The in-combination assessment has focussed on those projects or plans that have a potential effect on the European site network together with the proposed Llanelli and Burry Port site allocation. The deposit draft HRA indicated that the following projects/ plans have the potential to result in a significant effect on the European site network:

- *Regional Transport Plan – South West Wales Integrated Transport Consortium (SWWITCH) Provisional Regional Transport Plan for South West Wales December 2008;*
- *Regional Waste Plan - South West Wales Regional Waste Plan 1st Review August 2008;*
- *Regional Aggregates Plan - Regional Technical Statement for the area covered by the South Wales Regional Aggregates Working Party October 2008;*
- *Wales Spatial Plan (2004 and 2008 update);*
- *Rural Development Plan for Wales 2007 – 2013 (2008);*
- *Wales Coastal Tourism Strategy (2007);*
- *Minerals Planning Policy Wales (2000);*
- *Technical Advice Note 8 – Planning for Renewable Energy (2005);*
- *Revised Technical Advice Note 16 - Sport, Recreation and Open Space (2009);*
- *Carmarthenshire Connexions – a strategy for future prosperity 2005 – 2015;*
- *Carmarthen Bay Shoreline Management Plan (2000) and Shoreline Management Plan Swansea/Carmarthen Bay Coastal Engineering Group;*
- *A Local Development Plan for Rural Carmarthenshire 2007 – 2013;*
- *Pembrokeshire LDP;*
- *Pembrokeshire Coast National Park LDP;*
- *Swansea LDP;*

- *Water for Life and Livelihoods – Draft River Basin Management Plan Western Wales River Basin District (2008);*
- *Tawe, Loughor and Gower Catchment Abstraction Management Strategy (2007) and update (2008); and,*
- *Tywi, Taf and Gwendraeths Catchment Abstraction Management Strategy (2007) and update (2008).*

2.1 Summary of Screening Stage Methodology

The HRA Screening Report:

- *Highlighted all the European Sites within and outside the Local Development Plan area;*
- *Identified the vulnerabilities and sensitivities of the European Sites;*
- *Identified the potential impacts on the Sites that could be influenced by the Preferred Strategy; and,*
- *Highlighted other Plans and Policies that may in-combination with the Carmarthenshire LDP have an effect on the European Sites.*

2.2 Summary of the Methodology for the deposit draft HRA

To assess the potential effects of the Llanelli and Burry Port site allocation on the European Site network, the HRA follows the principles set out in the flow chart in Plate 2-A.

The site allocation process has been steered by the results and recommendations of the HRA Screening Report and been carried out in consultation with the County Ecologist and the Countryside Council for Wales (CCW) (now part of Natural Resources Wales).

Each site was assessed individually using the proforma set out in Appendix E. This assessed the sites in terms of any potential impacts that may arise from their spatial location (e.g. land take and fragmentation) and highlighted the potential impacts that were not directly related to the allocation position (e.g. changes in water quality as a result of sewage discharge).

The results of that initial assessment highlighted key potential impacts resulting from the proposed site allocation and any areas where mitigation could be implemented through the deposit draft LDP.

The other projects and plans that were highlighted by the HRA Screening Report as potentially affecting European Sites in-combination with the deposit draft LDP were reviewed and those that had the potential to affect the Carmarthen Bay and Estuaries European Marine Site (CBEEMS) have been included within this HRA.

The site allocation (with any mitigation) was assessed alone and in-combination against the conservation objectives for each of the European Sites.

2.3 This report

This report has been updated to reflect the changes made to the LDP following Examination and Matters Arising Changes. This has included a review of the assessment in respect of the changes using the methodology set out in section 2.2.

2.4 Sources of Information

The following sources of baseline information have been used to inform the assessment:

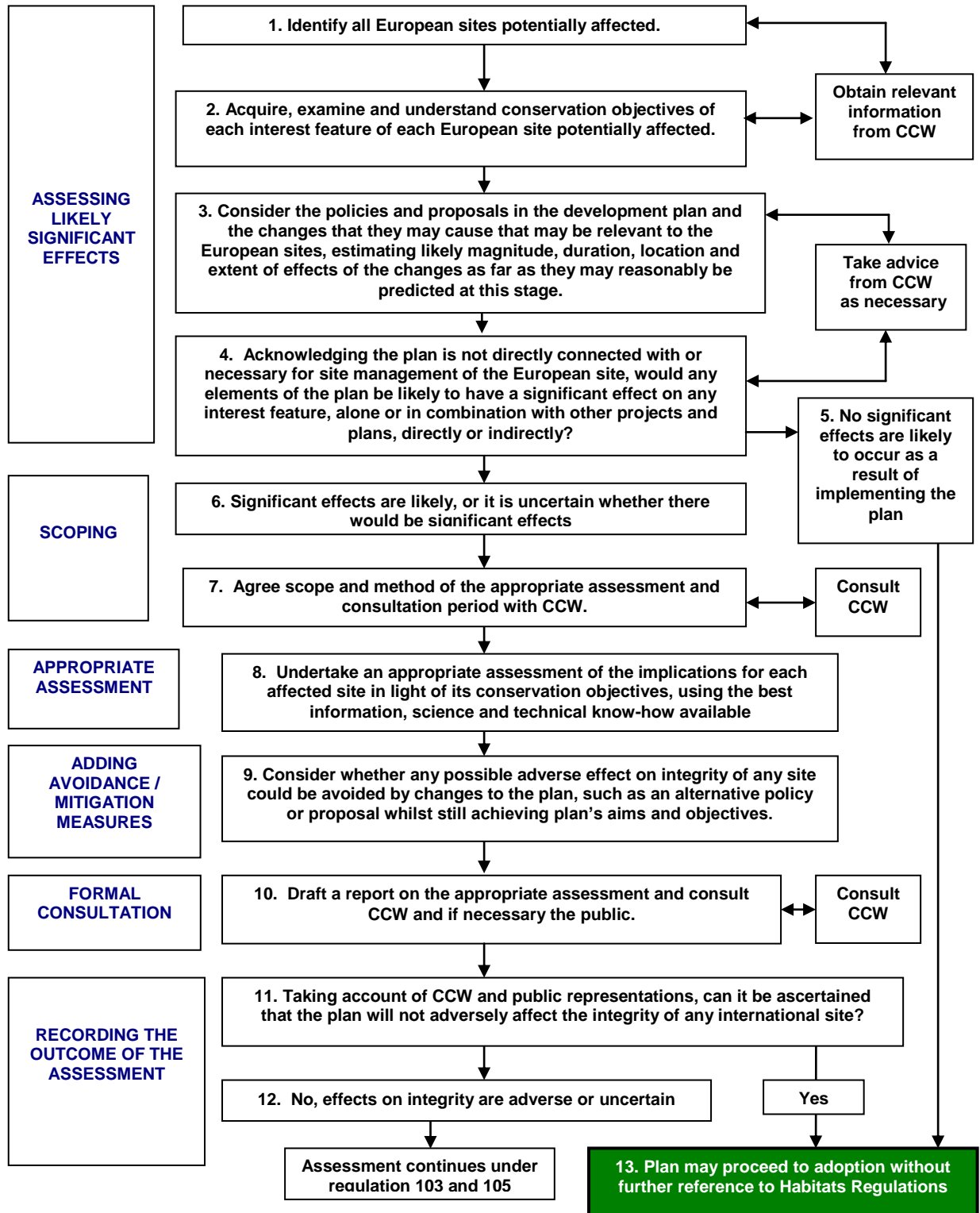
- *Carmarthenshire Preferred Site Allocation – GIS data from Forward Planning;*
- *Countryside Council for Wales Carmarthen Bay and Estuaries European Marine Site comprising: Carmarthen Bay and Estuaries Special Area of Conservation, Carmarthen Bay Special Protection Area, Burry Inlet Protection Area & Ramsar Site. Advice provided by the Countryside Council for Wales in fulfilment of Regulation 33 of the Conservation (Natural Habitats, &c.) Regulations 1994, February 2009;*
- *Burry Inlet Cockle Mortalities Investigation: Scientific Findings March to July 2009, final report to Environment Agency Wales; Institute of Estuarine and Coastal Studies, University of Hull (May 2010);*
- *Environment Agency Water for life and livelihoods: River Basin Management Plan – Western Wales River Basin District.*
- *Environment Agency Habitats Regulations Assessment of the River Basin Management Plan for the Western Wales River Basin District (November 2009);*
- *Dwr Cymru Welsh Water, Water Resources Management Plan, Draft Habitats Regulations Assessment (January 2009);*
- *Environment Agency, Water Abstraction Getting the Balance Right – The Tawe, Loughor and Gower Catchment Abstraction Management Strategy (September 2007); and,*
- *Carmarthenshire County Council - Strategic Flood Consequences Assessment – Stage One (December 2010).*

2.5 Use of Guidance

The assessment methodology is based upon that stated in the report Draft Guidance: The Assessment of Development Plans in Wales under the Provisions of the Habitats Regulations (David Tyldesley and Associates and the Welsh Assembly Government October 2006 and 2009 Update) but is also influenced by the following guidance:

- *WAG (2009) Technical Advice Note 5: Nature Conservation and Planning;*
- *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (European Commission 2000); and,*
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC" (European Commission 2002).*

Plate 2-A: Flow chart identifying the methodological steps (from Tyldesley, 2006) Note that CCW on this chart has become Natural Resources Wales (NRW)



3.1 Introduction

The European sites potentially affected by the proposed GA2 Llanelli and Burry Port (T2/1) site allocation are set out in Table 3-1. Their locations are shown in Figure 1 (Vol. 2) and their full citations are set out in Vol. 3 Appendix A.

Table 3-1: Summary of European Sites potentially affected by the GA2 Site Allocation

European Site	Site Features	Size ha
Carmarthen Bay and Estuaries European Marine Site Carmarthen Bay and Estuaries SAC	<ul style="list-style-type: none"> • Sandbanks which are slightly covered by sea water all the time • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Large shallow inlets and bays • Salicornia and other annuals colonising mud and sand • Atlantic salt meadows • Twaite shad • Sea lamprey • River lamprey • Allis shad • Otter 	66101.16
Carmarthen Bay and Estuaries European Marine Site Bae Caerfyrddin/ Carmarthen Bay SPA	<ul style="list-style-type: none"> • Common scoter 	33410.03
Carmarthen Bay and Estuaries European Marine Site Burry Inlet SPA	<ul style="list-style-type: none"> • Pintail • Northern shoveler • Teal • Wigeon • Dunlin • Red knot • Oystercatcher • Curlew • Grey plover • Shelduck • Redshank 	6627.99
Carmarthen Bay and Estuaries European Marine Site Burry Inlet Ramsar	<ul style="list-style-type: none"> • Tidal flats • Salt marshes • Estuarine waters • Sand/shingle shores • Rocky shores • Redshank • Pintail • Oystercatcher • Red knot • Shoveler • Noteworthy flora and fauna 	6627.99

3.2 Carmarthen Bay and Estuaries European Marine Site

The Carmarthen Bay and Estuaries European Marine Site (CBEEMS) is comprised of the following Natura 2000 sites:

- *Carmarthen Bay and Estuaries SAC;*
- *Carmarthen Bay SPA; and,*
- *Burry Inlet SPA and Ramsar.*

The Carmarthen Bay and Estuaries SAC shares the same boundary as the EMS, whilst the Burry Inlet and Carmarthen Bay SPAs are wholly encompassed within the EMS boundary.

Table 3-2, Table 3-3, and Table 3-4 summarise the qualifying features of each of the sites, together with their individual conservation objectives and most recent condition assessment.

Table 3-2: Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC

Feature	Condition from Core Management Plan incl. date of assessment	Conservation Objectives
Sandbanks which are slightly covered by sea water all the time Estuaries Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays <i>Salicornia</i> and other annuals colonising mud and sand Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)	Unknown	<ul style="list-style-type: none"> • Overall distribution and extent of habitat features within the site, and each of their main component parts, should be maintained as stable or increasing. • The physical, biological and chemical structure and functions necessary for the long-term maintenance and quality of the habitat should not be degraded. This includes a need for nutrient levels in the water column and sediments to be <ul style="list-style-type: none"> ○ at or below existing statutory guideline concentrations ○ within ranges that are not potentially detrimental to the long-term maintenance of the features species populations, their abundance and range. • Contaminant levels in the water column and sediments derived from human activity to be <ul style="list-style-type: none"> ○ at or below existing statutory guideline concentrations ○ below levels that would potentially result in increase in contaminant concentrations within sediments or biota ○ below levels potentially detrimental to the long-term maintenance of the features species populations, their abundance or range. • For Atlantic salt meadows, this includes the morphology of the saltmarsh creeks and pans. • The presence, abundance, condition and diversity of typical species are such that habitat quality is not degraded. Important elements include <ul style="list-style-type: none"> ○ species richness ○ population structure and dynamics ○ physiological health ○ reproductive capacity ○ recruitment ○ mobility ○ range
Twaité shad <i>Alosa fallax</i> Allis shad <i>Alosa alosa</i>	Unknown	<ul style="list-style-type: none"> • The population is maintaining itself on a long-term basis as a viable component of its natural habitat (including population size, structure, production and condition of species within the site). • Contaminant burdens derived from human activity are below levels that may cause physiological damage or

Feature	Condition from Core Management Plan incl. date of assessment	Conservation Objectives
Otter <i>Lutra lutra</i> Sea lamprey <i>Petromyzon marinus</i> River lamprey <i>Lampetra fluviatilis</i>		immune or reproductive suppression. <ul style="list-style-type: none"> The species population within the site is such that the natural range of the population is not being reduced or likely to be reduced for the foreseeable future. As part of this objective, it should be noted that: <ul style="list-style-type: none"> Their range within the SAC and adjacent inter-connected areas is not constrained or hindered; There are appropriate and sufficient food resources within the SAC and beyond; and The site and amount of supporting habitat used by these species are accessible and their extent and quality is stable or increasing. The presence, abundance, condition and diversity of habitats and species required to support this species is such that the distribution, abundance and population dynamics of the species within the site and population beyond the site is stable or increasing.

Table 3-3: Bae Caerfyrddin / Carmarthen Bay SPA

Feature	Condition from Core Management Plan incl. date of assessment	Conservation Objective
Common scoter	Favourable: Unclassified	<ul style="list-style-type: none"> The numbers of common scoter are stable or increasing. The abundance and distribution of suitable prey are sufficient and appropriate to support population. Common scoter are allowed to inhabit their feeding grounds and resting areas with minimum disturbance, and are allowed to move unhindered between them. All states of the Conservation Objectives for the supporting habitats and species, subject to natural processes, are fulfilled and maintained in the long-term. Supporting habitat is 'large shallow inlets and bays' for the common scoter.

Table 3-4: Burry Inlet SPA and Ramsar

Feature	Condition From Core Management Plan incl. date of assessment	Conservation Objective
Pintail Northern shoveler Teal Wigeon Dunlin Knot Oystercatcher Curlew Grey plover Shelduck Redshank Turnstone Intertidal mud- and sand- flats Saltmarsh Noteworthy flora Noteworthy fauna	Unknown	<ul style="list-style-type: none"> The numbers of all SPA bird species are stable or increasing. The abundance and distribution of suitable prey are sufficient and appropriate to support population. All SPA birds are allowed to inhabit their feeding grounds and resting areas with minimum disturbance, and are allowed to move unhindered between them. All states of the Conservation Objectives for the supporting habitats and species, subject to natural processes, are fulfilled and maintained in the long-term. Supporting habitats are 'Estuaries', Mudflats and sandflats not covered by seawater at low tide', 'Atlantic salt meadows' and '<i>Salicornia</i> and other annuals colonising mud and sand'. The management and control of activities or operations likely to be of significant effect to the oystercatchers, is appropriate for maintaining the feature at favourable conservation status and is secure in the long-term.

4.1 Growth Area 2 - Site allocation

The location of the site allocation for the Growth Area GA2 is shown on Figures 3 and 4 (Vol. 2). These growth areas include the settlements of Llanelli, Llangennech, Burry Port and Pembrey. The allocation is made up of 76 sites (16 in Burry Port/Pembrey area and 65 in the Llanelli area).

An assessment proforma has been completed for each of the sites within the Growth Area GA2 and this has recorded the potential impacts of each site allocation on the European site network. The site allocation associated with GA2 has the potential to have both a spatial and non-spatial impact.

Table 4-1: Summary of the potential impacts from the GA2 site allocation on the European site network.

Site Allocation Reference	Site Location	Residential (R), Employment (E) or Mixed (M)	Indicative allocation (Hectares if non-residential**)	Spatial					Non-Spatial	
				Land take	Disturbance	Air quality	Fragmentation	Non-native species	Water quality	Water resource
Llanelli area										
GA2/E1	Dafen	E	22.8ha						■	■
GA2/h1	Beech Grove, Pwll	R	10						■	■
GA2/h2	Former Stradey Park	R	355						■	■
GA2/h3	Glasfryn Gardens	R	9						■	■
GA2/h4	Llys yr Hen Felin	R	69						■	■
GA2/h5	Former Paragon Laundry, Lakefield	R	7						■	■
GA2/h6	Llys Arthur	R	5						■	■
GA2/h7	Adj. Ann Street	R	12						■	■
GA2/h8	Heol Goffa, Dimpeth	R	30						■	■
GA2/h9	Former Garage, Marsh Street	R	25						■	■
GA2/h10	Cambrian Place, Seaside	R	5						■	■
GA2/h11	The Croft, Queen Victoria Road	R	5						■	■
GA2/h12	Pentre Nicklaus Village	R	37		■				■	■
GA2/h13	The Avenue, Morfa	R	60						■	■
GA2/h14	Machynys West	R	205		■				■	■
GA2/h15	The Avenue (West), Delta Lakes	R	60						■	■
GA2/h16	Former Stripmill,	R	21						■	■

Site Allocation Reference	Site Location	Residential (R), Employment (E) or Mixed (M)	Indicative allocation (Hectares if non-residential**)	Spatial					Non-Spatial	
				Land take	Disturbance	Air quality	Fragmentation	Non-native species	Water quality	Water resource
	Coedcae									
GA2/h17	r/o 60 Coedcae Road	R	5						■	■
GA2/h18	Land at Penallt, Stebonheath	R	60						■	■
GA2/h19	Land at Nightingale Court, Coedcae	R	50						■	■
GA2/h20	Land at Brynallt Terrace	R	5						■	■
GA2/h21	Land at Frondeg Terrace	R	69						■	■
GA2/h22	Bryntirion, Llanerch	R	34						■	■
GA2/h23	Opp. playing fields, Llanerch	R	12						■	■
GA2/h24	Adj. Parc Brynmawr, Pentrepoeth	R	100						■	■
GA2/h25	Marley House, Coedcae.	R	5						■	■
GA2/h26	R/o 31A, Swiss Valley	R	6						■	■
GA2/h27	Dafen East Gateway	R	150						■	■
GA2/h28	Adj Cilsaig Farm, Dafen	R	8						■	■
GA2/h29	Southern Unit, AVON Inflatables, Dafen	R	60						■	■
GA2/h30	Adj. Gors Fach, Penceiliogi, Dafen	R	185						■	■
GA2/h31	Land off Bryncoch, Penceiliogi, Dafen	R	125						■	■
GA2/h32	Bryncoch West, Dafen	R	15						■	■
GA2/h33	Bryncoch East, Dafen	R	26						■	■
GA2/h34	Land at rear of 45-79 Pemberton Road	R	9						■	■
GA2/h35	Land at Maesarddafen Road/ Erw Las, Cefncaeau	R	300						■	■
GA2/h36	Former Church, Llwynhendy Road	R	13						■	■
GA2/h37	Land at Parc Gitto/Llwynhendy Road	R	30						■	■
GA2/h38	Former Glynderwen Factory, Llwynhendy rd.	R	8						■	■
GA2/h39	Penllwynrhodyn Road, West, Llwynhendy	R	11						■	■
GA2/h40	Penllwynrhodyn Road, East, Llwynhendy	R	25						■	■

Site Allocation Reference	Site Location	Residential (R), Employment (E) or Mixed (M)	Indicative allocation (Hectares if non-residential**)	Spatial					Non-Spatial	
				Land take	Disturbance	Air quality	Fragmentation	Non-native species	Water quality	Water resource
GA2/h42	Bwlch Farm, Bynea	R	5						■	■
GA2/h43	Clos Y Gerddi, Bynea	R	43						■	■
GA2/h44	Ffordd y Gamlas, Yspitty Rd, Bynea	R	63						■	■
GA2/h45	Genwen Road, Bryn	R	150						■	■
GA2/h46	Llys Pendderi, Bryn	R	200						■	■
GA2/h47	Pantbryn Isaf, Trallwm	R	65						■	■
GA2/h48	North of Clos Pendderi, Bryn.	R	137						■	■
GA2/h49	Maes Y Bryn, Bryn	R	46						■	■
GA2/h50	Box Farm, Llangennech	R	8						■	■
GA2/h51	Aber Llwhchr, Llangennech	R	56						■	■
GA2/h52	Golwg Yr Afon, Llangennech	R	50						■	■
GA2/h53	Opposite Parc Morlais, Llangennech	R	30						■	■
GA2/h54	Maesydderwen, Llangennech	R	8						■	■
GA2/h55	Brynmeffys, Furnace	R	70						■	■
GA2/h56	Llys y Bryn, Penceiliogi	R	145						■	■
GA2/h57	Dylan, Trallwm	R	25						■	■
GA2/MU1	Old Castle Works	M	5.49ha						■	■
GA2/MU2	Former DRAKA site, Copperworks Rd	M	150						■	■
GA2/MU3	Machynys Bund	M	11.64ha		■				■	■
GA2/MU4	Trostre Gateway	M	70						■	■
GA2/MU7	North Dock	M	335		■				■	■
GA2/MU9	Delta Lakes	M	9.78ha						■	■
Burry Port and Pembrey Area										
T2/1/E1	Dyfatty, Burry Port	E	3.28ha						■	■
T2/1/h1	Lando Road, Pembrey	R	66 (36 complete)						■	■
T2/1/h2	Cwrt Farm, Pembrey	R	75						■	■
T2/1/h3	Oaklands Close, Bury Port	R	8 complete						■	■
T2/1/h4	Bay View Graig	R	9						■	■
T2/1/h5	Cwrt Gwscwm, Burry Port	R	9 complete						■	■
T2/1/h6	St Mary's Court, Burry Port	R	13 complete						■	■
T2/1/h7	Dolau Fan, Burry Port	R	7 complete						■	■
T2/1/h8	Chandler's Yard, Burry Port Harbour	R	40 complete						■	■

Site Allocation Reference	Site Location	Residential (R), Employment (E) or Mixed (M)	Indicative allocation (Hectares if non-residential**)	Spatial					Non-Spatial	
				Land take	Disturbance	Air quality	Fragmentation	Non-native species	Water quality	Water resource
T2/1/h9	Gwdig Farm, Burry Port	R	86						■	■
T2/1/h10	Lando Road, Pembrey		20						■	■
T2/1/h11	Garreglwyd, Pembrey		10						■	■
T2/1/h12	Dyfatty North, Burry Port		80						■	■
T2/1/h13	Dyfatty South, Burry Port		20						■	■
T2/1/h14	Heol Waun Wen, Burry Port		10						■	■
T2/1/MU1	Burry Port Harbour	M	2.9ha						■	■

The potential spatial impacts are entirely as a result of the sites' geographic location and the sites that are immediately adjacent to the coast were initially considered to have a potential disturbance effect on the birds in the Estuary. However, given these sites are within the settlement limits, often on the landward side of the main railway line, any disturbance is highly likely to be confined to the construction period alone. Mitigation measures would be implemented at the project level therefore the GA2 and T2/1 site allocation is not considered to result in any potential spatial impacts on the European site network.

The potential non-spatial impacts will occur regardless of geographic location and are entirely related to sewage/surface water discharges and water supply. These non-spatial impacts, particularly collectively, have the potential to affect the CBEEMS.

Both spatial and non-spatial impacts from the site allocations on the three designated sites that make up the CBEEMS are discussed below in the context of data on existing condition.

4.2 Carmarthen Bay and Estuaries European Marine Site (CBEEMS)

The potential spatial and non-spatial impacts resulting from the GA2 site allocation have been summarised in Table 4-2 and are discussed in greater detail in the paragraphs following. The area of influence of spatial impacts is only considered to be disturbance to the likely foraging routes and laying up areas of otter along the coastal waterbodies flowing into the Burry Inlet and Loughor Estuary.

Table 4-2: Summary of potential impacts on Carmarthen Bay and Estuaries European Marine Site (CBEEMS)

Potential impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
Air quality	None as no sources of air quality deterioration in the Llanelli and Burry Port/Pembrey Growth Area.	Atlantic salt meadows	No
Land take and fragmentation	Habitat loss – breeding habitat and connecting habitat. There are no developments or land reclamation directly on the foreshore or its boundary.	Intertidal sandbanks, Atlantic salt meadows, intertidal mudflats and sandflats, otter	No
Water quality	Increase in foul water treatment required by WwTW and increase in contaminated surface water run-off from increased hard surfaces – Deterioration in water and sediment quality.	Sandbanks, intertidal mudflats and sandflats, Atlantic salt meadows, <i>Salicornia</i> and other annuals colonising mud and sand, shad, river lamprey, sea lamprey and all bird species of the Carmarthen Bay SPA and Burry Inlet SPA, particularly through their associated habitats and benthic invertebrate prey.	Potential
Water resources	Water abstraction to supply proposed allocation will not affect the CBEEMS.	Estuaries, large shallow inlets and bays.	No

4.2.1 Water quality

(i) Baseline

NRW monitoring of the River Loughor suggest it has very good water quality and good biological quality and although phosphate contributions are slightly elevated, along with nitrate concentrations, they are considered low. The Inner Loughor Estuary to the east of Llanelli is of moderate ecological status and supports good water quality. Its status is not expected to alter by 2015. The Outer Loughor Estuary, which includes the Burry Inlet from Llanelli and to the west, is currently considered to be at Good ecological status and is predicted to remain so in 2015 (Environment Agency, 2009).

Water quality in the Burry Inlet is considered to be improving and there are not specific areas of water quality concern other than that raised by the elevated cockle mortalities over the last decade. The cockles were seen to undergo their reproductive cycle too rapidly and were dying prematurely. Although reproduction was still occurring and if anything cockle numbers were increasing, their individual size is decreasing notably; restricting their benefit as a food source for birds in the harbour.

The large scale mortality of cockles was, until recently, widely attributed to an assumed deterioration in water quality within the Inlet, but recent investigations have suggested that there is no significant trend between cockle mortalities and water or sediment quality parameters (Elliott *et al.*, 2010). There is evidence of faster growth

in cockles in both the Burry Inlet and the Dee Estuary (North Wales), with the Burry Inlet specimens demonstrating faster growth. Both sites suggested elevated levels of immunological stress within the cockles. It may be that a new parasite may be resident amongst the high numbers of existing parasites within the Inlet and it is possible that this may be causing premature development and mortality in those cockles under immunological stress (Elliott *et al.*, 2010).

(ii) Potential Impact – Water quality

An increase in foul water needing treatment will arise from the proposed site allocation. Using standard figures provided by DCWW, gravity sewers are designed to accommodate approximately 4 m³ per residential unit per day for treatment at the waste water treatment works (WwTW). The volumetric capacity of the existing WwTWs is finite and the introduction of approximately 17360 m³ per day from the combination of all residential site allocations within GA2 (approximately 15,708 m³ per day around Llanelli and 1652 m³ litres per day in the Burry Port/Pembrey area) may threaten its residence time within the works and therefore the works ability to effectively treat the foul water to a suitable level, prior to discharge.

Where capacity at the works is exceeded, particularly relevant during periods of heavy rainfall and therefore elevated surface water within the system, the works may (within their licence) rely on the benefit of dilution and release the excess foul water without anything other than primary treatment. These storm spills are permitted on one to two occasions during the year within most WwTW consents to cope with excessive rainfall events, but chronic overloading of WwTWs can lead to the considerable release of excess foul water over time.

Elevated levels of nutrients can therefore be discharged from WwTWs where storage and/or treatment capacity is insufficient for demand. Nutrient sources are also prevalent elsewhere in the catchment including from agricultural and surface water run-off. Pollution is also in evidence within foul water discharge from such contaminants as hormones, metals (e.g. iron from phosphate stripping) and bacterial contamination.

Nutrients are needed in the estuary as this supports the growth of algae, saltmarsh plants and benthic invertebrates fundamental to the structure and function of the SAC and SPAs, which in turn provide food for other species in the food chain including waders, waterfowl and fish. Significantly, for the habitat features of the CBEEMS, the presence of a diverse community of invertebrates and algae within the mudflats and salt meadows help to maintain the physical structure, cohesion and aeration of the mudflats and salt meadows (Austen *et al.*, 1999; Elliott *et al.*, 1998).

However, excessive nutrients can lead to overgrowth of surface green algae (particularly species of *Ulva* and *Enteromorpha*). These species can blanket the mudflat and saltmarsh, preventing the exchange of oxygen through the surface. This results in a significant reduction in the invertebrate biomass and condition of habitat features including intertidal mudflats, sandflats and Atlantic salt meadows and restricts the availability of invertebrate prey important to the bird features of the Burry Inlet SPA and the Carmarthen Bay SPA.

These potential impacts are being addressed from a number of different directions, including NRW, DCWW, Memorandum of Understanding (MoU) to safeguard the CBEEMS and through the LDP policies, such as EP1 Water Quality and Resources, EP2 Pollution and EP3 Sustainable Drainage.

The Western Wales River Basin Management Plan (RBMP) sets out proposed levels of growth and development in the area and develops actions to address the likely impacts to water quality. The RBMP establishes a commitment to the improvement of continuous and intermittent sewage effluent discharges as part of the ongoing water industry asset management programme.

Programmed actions in the Western Wales RBMP require Local and Regional Government to “Promote [across the river basin district] the use of sustainable drainage systems in new urban and rural development where appropriate, and retrofit in priority areas including highways where possible”. Programmed commitments within the RBMP for 2009 and 2010 included carrying out investigations and initiating specific improvement schemes to address water quality. Improvement to treatment facilities at several works have already occurred and more are planned for the next few years. Actions within the RBMP include: the completion of the current round, and improvements under the next round (AMP 5) of water company asset investment to deliver water quality improvements; influencing behaviour using awareness campaigns for surface water run-off, sustainable drainage, rainwater harvesting etc; the investigation of emissions from WwTW; and to appraise options on whether to treat at source or treat at the treatment works in certain catchments.

The key stakeholders (including DCWW, NRW Carmarthenshire and Swansea) have a Memorandum of Understanding (MOU) (Sept 2011) that aims to “*set out a partnership approach to improve and safeguard the environmental quality of the CBEEMS, when taking decisions on development and regeneration scheme.*” The MoU contains guidance with regard to surface water management for development in the Llanelli and Gowerton catchment (the sewage catchments with greatest risk of affecting the water quality of the CBEEMS). This is implemented by Carmarthenshire and Swansea by only giving planning permission once existing flows (surface water or foul) have been removed from the system to allow capacity or other works undertaken to improve the infrastructure. There is also the requirement for a betterment factor. Both planning authorities manage this process by keeping a Surface Water and Hydraulic Register for the Llanelli and Gowerton catchments.

The water quality of the River Loughor prior to entering the CBEEMS is currently considered to be very good (Environment Agency, 2009), therefore in simple terms the existing sewage treatment discharges from the Llanelli and Burry Port/Pembrey area are not affecting the water quality entering the CBEEMS.

The GA2 site allocation has been proposed to cover the plan period from 2006 to 2021 and will be developed throughout this period. The allocation sites will all have to go through or have been through the planning process which includes consultation with the NRW and DCWW.

The LDP also includes a number of policies that will also mitigate any potential effects on the water quality of receiving watercourses, and these include:

- *GP1 Sustainability and High Quality Design;*
- *GP4 Infrastructure and New Development;*
- *EP1 Water Quality and Resources;*
- *EP2 Pollution; and,*
- *EP3 Sustainable Drainage.*

An additional impact screening level occurs when the NRW review discharge consent applications and work with DCWW to ensure that the watercourses are protected with the increased demand for sewage treatment as site allocations are taken up.

(iii) Test of Likely Significance

The proposed site allocation will have no effect on the range or distribution of habitat or species features of the CBEEMS. There is the potential for the maximum predicted volumes of foul water discharge and the potential contamination from surface water run-off over the increased area of exposed hard surfacing to have an impact upon the conservation objectives for the CBEEMS. In particular, if all developments were to occur at once and soon, it is possible that the potential deterioration in water quality may adversely affect the structure and function of habitat features and the presence, abundance, condition and diversity of their typical species, such as bivalves (e.g. cockles), amphipods, worms and eel grass.

However, given that site allocations will not be taken up all at once, the safeguards that are in place to protect the water quality of the receiving watercourses, the MoU Registers and the currently very good water quality entering the Burry Inlet through the Loughor Estuary ***it seems reasonable to consider the proposed GA2 site allocation will have no likely significant impacts on the water quality of the CBEEMS.***

(iv) In-combination Test of Likely Significance

The MoU includes the neighbouring authority Swansea and there are no other plans or projects within the Llanelli/Burry Port/Pembrey area are known that could result in a significant effect on the water quality of the CBEEMS in combination with the GA2 site allocation.

The aim of this report was to assess the potential impacts of the Growth Area 2 (GA2) Llanelli and Burry Port/Pembrey site allocation on the European Sites Network.

The European sites in close proximity to the allocation that could be subject to spatial impacts from the site allocation are:

- *Carmarthen Bay and Estuaries SAC;*
- *Carmarthen Bay SPA; and,*
- *Burry Inlet SPA / Ramsar.*

The site allocation also has the potential to have non-spatial impacts via the increase in foul water discharge. The European sites potentially affected are:

- *Carmarthen Bay and Estuaries SAC;*
- *Carmarthen Bay SPA; and,*
- *Burry Inlet SPA / Ramsar.*

The table below summarises the potential effects on the European sites.

Table 5-1: Summary of potential effects on the European Sites

European Site	Potential Impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
Carmarthen Bay and Estuaries SAC	Air quality	None as no sources of air quality deterioration in the Llanelli and Burry Port/Pembrey Growth Area.	Atlantic salt meadows	No
	Land take and fragmentation	Habitat loss – breeding habitat and connecting habitat. There are no developments or land reclamation directly on the foreshore or its boundary.	Intertidal sandbanks, Atlantic salt meadows, intertidal mudflats and sandflats, otter	No
	Water quality	Increase in foul water treatment required by WwTW and increase in contaminated surface water run-off from increased hard surfaces – Deterioration in water and sediment quality.	Sandbanks, intertidal mudflats and sandflats, Atlantic salt meadows, <i>Salicornia</i> and other annuals colonising mud and sand, shad, river lamprey and sea lamprey.	Potential
	Water resources	Water abstraction to supply proposed allocation will not affect the SAC.	Estuaries, large shallow inlets and bays.	No
Carmarthen Bay SPA	Air quality	None as no sources of air quality deterioration in the Llanelli and Burry	None	No

European Site	Potential Impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
		Port/Pembrey Growth Area.		
	Land take and fragmentation	Habitat loss – breeding habitat and connecting habitat. There are no developments or land reclamation directly on the foreshore or its boundary.	Common scoter	No
	Water quality	Increase in foul water treatment required by WwTW and increase in contaminated surface water run-off from increased hard surfaces – Deterioration in water and sediment quality.	Common scoter (through effects on invertebrate prey and supporting habitat)	Potential
	Water resources	Water abstraction to supply proposed allocation will not affect the SPA.	Common scoter (through effects on invertebrate prey and supporting habitat)	No
Burry Inlet SPA (and Ramsar)	Air quality	None as no sources of air quality deterioration in the Llanelli and Burry Port/Pembrey Growth Area.	None	No
	Land take and fragmentation	Habitat loss – breeding habitat and connecting habitat. There are no developments or land reclamation directly on the foreshore or its boundary.		No
	Water quality	Increase in foul water treatment required by WwTW and increase in contaminated surface water run-off from increased hard surfaces – Deterioration in water and sediment quality.	All site species features (primarily through effects on invertebrate prey and supporting habitat)	Potential
	Water resources	Water abstraction to supply proposed allocation will not affect the SPA.	All site species features (primarily through effects on invertebrate prey and supporting habitat)	No

There is a commitment held by the Environment Agency and DCWW to undertake improvements in WwTW capacity, treatment levels and discharge quality through programmed actions within the River Basin Management Plan (under the requirements of the Water Framework Directive) and through funding allocations and priorities secured through the AMP 5 process. It is acknowledged that for many estuaries and coasts it may be unlikely to increase the number of sites achieving 'good ecological status' by 2015 as monitoring tools have only recently been implemented and information remains limited on the extent and effects of pressures facing these sites. However, the RBMP commits to instigating investigations to help find technically feasible actions that are not disproportionately costly with the aim of achieving good overall status by 2021 or 2027.

In the Burry Inlet and Loughor Estuary, a wider group of stakeholders have committed to working together and have identified methods for improvement and undertaken a variety of investigations needed to understand more about the pressures and effects on the CBEEMS. This has been achieved through a Memorandum of Understanding (MOU) between Carmarthenshire County Council (CCC), City and County of Swansea, Dwr Cwmru Welsh Water and NRW. This sets out how these parties will work together to safeguard the environmental quality of the CBEEMS when taking decisions on developments and regeneration schemes within the catchment.

The separation of surface water from foul water is also picked up through both strategic and area-wide policies within the LDP, particularly:

- *GP1 Sustainability and High Quality Design;*
- *GP4 Infrastructure and New Development;*
- *EP1 Water Quality and Resource;*
- *EP2 Pollution; and,*
- *EP3 Sustainable Drainage.*

It is considered that the combination of management commitments by the NRW and DCWW through the RBMP, the group of stakeholders within the MOU, and CCC through policies inherent within the LDP are an appropriate safeguard to protecting the CBEEMS from the proposed site allocations within GA2. ***Therefore no likely significant effects on the CBEEMS are anticipated from the GA2 site allocation alone or in-combination with any other known plans or projects.***

This strategic plan level HRA does not obviate the need for further HRA at detailed planning application level and it is recommended that this strategic plan level work informs and supports project specific HRA where it is required.

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**Appendix D Strategic Growth Area: Ammanford/Cross Hands
Assessment of Potential Effects on the European Site
Network**





Carmarthenshire County Council

Local Development Plan

Habitats Regulations Assessment

**Growth Area 3: Ammanford/Cross Hands
Assessment of Potential Effects on the European
Site Network**

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1.1 Purpose of this report

This report provides supporting evidence to the main Habitats Regulations Appraisal for the Local Development Plan (LDP). The Preferred Strategy highlighted three Growth Areas in Carmarthenshire, Carmarthen (GA1), Llanelli (GA2) and Ammanford/Cross Hands (GA3) and it is these areas that have been identified in the Preferred Strategy to receive the majority of the site allocation.

The objective of this report is to record the assessment of the effects of the LDP, following Examination and Matters Arising Changes, and in particular the site allocation for the Ammanford/Cross Hands Growth Area on the European Sites. The HRA report supporting the deposit draft LDP indicated that the following European Sites could be affected (see Figure 4):

- *Caeau Mynydd Mawr Special Area of Conservation (SAC),*
- *Cernydd Carmel SAC,*
- *Carmarthen Bay and Estuaries European Marine Site (CBEEMS), and,*
- *River Tywi SAC.*

The assessment in this report only considers those impacts over which the LDP has any influence and is focused on the potential effects of the site allocation in the Ammanford/Cross Hands area both individually and collectively.

The in-combination assessment has focussed on those projects or plans that have a potential effect on the European Site network together with the Ammanford/Cross Hands site allocation. The deposit draft HRA indicated that the following projects/plans may result in a significant effect on the European site network in the Ammanford/Cross Hands area:

- *Regional Transport Plan – South West Wales Integrated Transport Consortium (SWWITCH) Provisional Regional Transport Plan for South West Wales December 2008.*
- *Regional Waste Plan - South West Wales Regional Waste Plan 1st Review August 2008.*
- *Regional Aggregates Plan - REGIONAL TECHNICAL STATEMENT for the area covered by the South Wales Regional Aggregates Working Party October 2008.*

2.1 Summary of Screening Stage Methodology

The previously published HRA Screening Report:

- *Highlighted all the European Sites within and outside the Local Development Plan area;*
- *Identified the vulnerabilities and sensitivities of the European Sites;*
- *Identified the potential impacts on the Sites that could be influenced by the Preferred Strategy; and,*
- *Highlighted other Plans and Policies that may in-combination with the Carmarthenshire deposit draft LDP have an effect on the European Sites.*

2.2 Summary of the Methodology for the deposit draft HRA

To assess the potential effects of the Ammanford/Cross Hands site allocation on the European Site network the HRA follows the principles set out in the flow chart in Plate 2-A.

The site allocation process has been steered by the results and recommendations of the previously published HRA Screening Report (Jacobs 2009) and was carried out in consultation with the County Ecologist and the Countryside Council for Wales (CCW).

Each site was assessed individually using the proforma set out in Volume 3 Appendix E. This process assessed the sites in terms of any potential impacts via spatial location e.g. land take and fragmentation, and highlighted the potential impacts that were non spatial e.g. changes in water quality as a result of sewage discharge.

The results of that initial assessment highlighted key potential impacts resulting from the proposed site allocation and any areas where mitigation could be implemented through the deposit draft LDP.

The other projects and plans that were highlighted by the HRA Screening Report as potentially affecting European Sites in-combination with the deposit draft LDP were reviewed and those that had the potential to affect the Caeau Mynydd Mawr SAC, Cernydd Carmel SAC and Carmarthen Bay and Estuaries European Marine Site (CBEEMS) have been included within this HRA.

The River Tywi SAC has also been included as the supply of water for the proposed GA3 allocation, in particular the residential and Cross Hands food park elements, has the potential to have a significant effect on the water resource of the SAC.

The site allocation (with any mitigation) was assessed alone and in-combination against the conservation objectives for each of the European Sites.

2.3 This Report

This report has been updated to reflect the changes made to the LDP following Examination and Matters Arising Changes. This has included a review of the assessment in respect of the changes using the methodology set out in section 2.2.

2.4 Sources of Information

The following sources of baseline information have been used to inform the assessment.

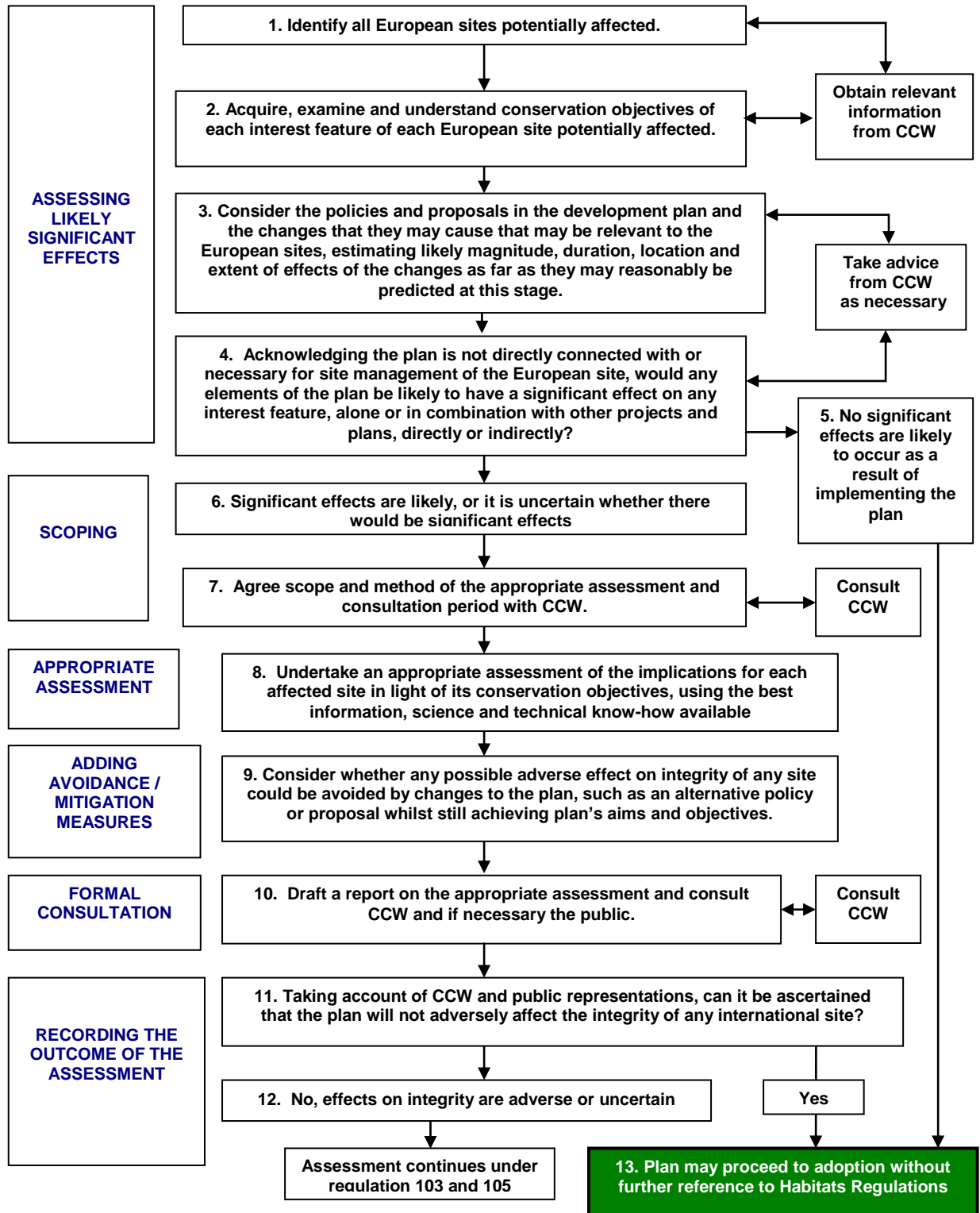
- *Carmarthenshire Preferred Site Allocation – GIS data from Forward Planning.*
- *Smith & Gander (2010) Landscape-Scale Habitat Quality Survey for the Marsh Fritillary Butterfly around Caeau Mynydd Mawr SAC, Carmarthenshire 2009.*
- *Countryside Council for Wales Core Management Plan including Conservation Objectives for Caeau Mynydd Mawr Special Area of Conservation (SAC). Version: 11 Date: 15 April 2008.*
- *Countryside Council for Wales Core Management Plan including Conservation Objectives for Cernydd Carmel SAC (Special Area of Conservation) Version: 9 Date: 15 April 2008.*
- *Countryside Council for Wales Carmarthen Bay and Estuaries European Marine Site comprising: Carmarthen Bay and Estuaries Special Area of Conservation, Carmarthen Bay Special Protection Area, Burry Inlet Protection Area & Ramsar Site. Advice provided by the Countryside Council for Wales in fulfilment of Regulation 33 of the Conservation (Natural Habitats, &c.) Regulations 1994, February 2009.*
- *Countryside Council for Wales Core Management Plan including Conservation Objectives for Afon Tywi / River Tywi SAC (Special Area of Conservation) Version: 11 Date: 15 April 2008.*
- *Environment Agency Review of Consents Stage 3 Assessment Caeau Mynydd Mawr SAC Version 3, August 2009.*
- *Environment Agency Annex to Appendix 21 Final Air Pollution Assessment Caeau Mynydd Mawr SAC. Version 2, March 2007.*
- *Environment Agency Habitats Directive Fact sheet River Tywi SAC www.environment-agency.gov.uk accessed 11 Mar 2011.*

2.5 Use of Guidance

The assessment methodology is based upon that stated in the report Draft Guidance: The Assessment of Development Plans in Wales under the Provisions of the Habitats Regulations (David Tyldesley and Associates and the Welsh Assembly Government October 2006 and 2009 Update) but is also influenced by the following guidance:

- *WAG, (2009) Technical Advice Note 5: Nature Conservation and Planning;*
- *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (European Commission 2000); and,*
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC" (European Commission 2002).*

Plate 2-A: Flow chart identifying the methodological steps (from Tyldesley 2006) Note that CCW on this chart has become Natural Resources Wales (NRW)



3.1 Introduction

The European Sites potentially affected by the proposed GA3 Ammanford/Cross Hands site allocation are set out in Table 3-1. Their locations are shown in Figure 1 and their full citations are set out in Volume 3 Appendix A.

Table 3-1: Summary of European Sites potentially affected by the GA3 Site Allocation

European Site	Site Features	Size ha
Caeau Mynydd Mawr SAC	<ul style="list-style-type: none"> Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) Marsh fritillary butterfly 	25.06
Cernydd Carmel SAC	<ul style="list-style-type: none"> Turloughs Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths Active raised bogs Tilio-Acerion forests of slopes, screes and ravines 	361.14
Carmarthen Bay and Estuaries European Marine Site Carmarthen Bay and Estuaries SAC	<ul style="list-style-type: none"> Sandbanks which are slightly covered by sea water all the time Estuaries Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays Salicornia and other annuals colonising mud and sand Atlantic salt meadows Twaite shad Sea lamprey River lamprey Allis shad Otter 	66101.16
Carmarthen Bay and Estuaries European Marine Site Bae Caerfyrddin/ Carmarthen Bay SPA	<ul style="list-style-type: none"> Common scoter 	33410.03
Carmarthen Bay and Estuaries European Marine Site Burry Inlet SPA	<ul style="list-style-type: none"> Pintail Northern Shoveler Teal Wigeon Dunlin Red knot Oystercatcher Curlew Grey Plover Shelduck Redshank 	6627.99
Carmarthen Bay and Estuaries European Marine Site Burry Inlet RAMSAR	<ul style="list-style-type: none"> Tidal flats Salt marshes Estuarine waters Sand/shingle shores Rocky shores Redshank Pintail Oystercatcher Red knot Shoveler Noteworthy flora and fauna 	6627.99

European Site	Site Features	Size ha
Afon Tywi/ River Twyi SAC	<ul style="list-style-type: none"> • Twaite shad • Otter • Sea lamprey • River lamprey • Brook lamprey • Allis shad • Bullhead 	363.45

3.2 Caeau Mynydd Mawr SAC

This is the only SAC selected to represent the marsh fritillary butterfly (*Euphydryas aurinia*) and Molinia meadows (on calcareous, peaty or clayey-silt-laden soils *Molinion caeruleae*) in Carmarthenshire, and it is one of the major strongholds for the marsh fritillary in Wales and the UK.

The CCW Core Management Plan sets out the following information as part of its Conservation Objectives which is key to the assessment of the potential effects of the GA3 Site Allocation on the SAC.

The SAC populations will be the core of the metapopulation. The metapopulation will consist of the SAC populations plus populations breeding on land within c. 2 kilometres of the SAC boundary.

Favourable Conservation Status of the metapopulation requires the appropriate management of a network of Potential, Suitable and Good Condition marsh fritillary habitat to include, at a minimum, 50 ha of suitable habitat within which 10 ha of Good Condition habitat is supported. Caeau Mynydd Mawr SAC cannot support the required criteria alone since the total area of the component SSSIs is too small (25.1 ha). It is stressed that the condition and status of the metapopulation remain dependant on the appropriate management of a network of well-managed sites rather than on one site, however large and well managed (A. Fowles, pers. comm. 2006). Component populations of a metapopulation must be within c. 2 kilometres of other populations for the metapopulation to function.

Metapopulations - The Mynydd Mawr Marsh Fritillary Project, funded by the Countryside Council for Wales and managed by Butterfly Conservation, was set up in April 2004 to identify areas of suitable habitat that could be managed for the marsh fritillary meta-population within the wider landscape surrounding Caeau Mynydd Mawr SAC. A survey to evaluate the habitat condition of an additional 83 fields using the landscape boundary definition in Fowles (2005) was undertaken in 2004- 2005. The survey included all marsh fritillary habitat in the Mynydd Mawr area lying within a 1 km radius from post-1990 records. The survey followed a provisional assessment by Pryce Consultant Ecologists of marsh fritillary habitat in 2001 (Smith et al. 2002). Performance indicators have been set for the marsh fritillary butterfly metapopulation supported by Caeau Mynydd Mawr SAC and surrounding habitat (Lovering, 2006). The total area of Good Condition habitat available to the metapopulation is 8.7 ha (including 2.2 ha SAC habitat); this falls short of the target of 10 ha. The total area of Suitable Condition habitat, including 10.7 ha of SAC habitat, is 54.6 ha and is within the limits of the target of 50 ha (including 10 ha Good Condition habitat). Following guidance (Fowles, 2003) there is currently insufficient Good Condition habitat available to the metapopulation therefore the conservation status of the marsh fritillary metapopulation is assessed as Unfavourable.

Table 3-2: Summary of habitat quality within the SAC following Smith and Gander 2010

Habitat Suitability	Number of discrete areas	Hectares
Good Condition	9	1.75
Potential (Rank)	1	0.06
Suitable (Over-grazed)	8	1.39
Suitable (Sparse)	6	6.64
Suitable (Under-grazed)	7	8.47
Total		18.31

Table 3-3: Summary of habitat available to the meta-population following Smith and Gander 2010 (Within approximately 2km of the SAC)

Habitat Suitability	Number of discrete areas	Hectares
Good Condition	174	9.82
Potential (Rank)	106	43.11
Suitable (Over-grazed)	161	8.57
Suitable (Sparse)	111	6.23
Suitable (Under-grazed)	131	13.72
Total		81.45

Table 3-4: Summary of habitat available to the meta-population following Smith and Gander 2010 (1km core landscape area)

Habitat Suitability	Number of discrete areas	Hectares
Good Condition	484	21.44
Potential (Rank)	380	146.75
Suitable (Over-Grazed)	343	30.44
Suitable (Sparse)	245	29.79
Suitable (Under-Grazed)	377	36.57
Total		264.99

3.3 Cernydd Carmel SAC

Cernydd Carmel supports a diverse range of habitats, including woodland, grassland, heathland and bog. Of particular interest is the seasonal lake or turlough, situated next to the small hamlet of Pantllyn at the eastern end of the site. Table 3-5 summarises the Conservation Objectives for this SAC that are set out in full in the Core Management Plan for the site.

Table 3-5: Cernydd Carmel SAC

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
Turloughs	Unfavourable: Unclassified (2006)	<ul style="list-style-type: none"> Habitat extent and vegetation composition, and water quality must not fall below the lower limits and must meet the vision in order to be in favourable condition
Northern Atlantic wet heaths <i>with Erica tetralix</i>	Unfavourable: Unclassified (2003)	<ul style="list-style-type: none"> Habitat extent and quality must not fall below the lower limits and must meet the vision in order to be in favourable condition
European dry heaths	Unfavourable: Unclassified (2003)	<ul style="list-style-type: none"> Habitat extent and quality must not fall below the lower limits and must meet the vision in order to be in favourable condition
Active raised bogs	Unfavourable: Unclassified (2003)	<ul style="list-style-type: none"> Habitat extent and quality, water levels and quality, and atmospheric deposition must not fall below the

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
		lower limits or exceed upper limits and must meet the vision in order to be in favourable condition
Tilio-Acerion forests of slopes, screes and ravines	Unfavourable: Declining (2008)	<ul style="list-style-type: none"> The forest's extent, canopy cover, structure, species composition, dead wood and regeneration must not fall below the lower limits and must meet the vision in order to be in favourable condition

3.4 Carmarthen Bay and Estuaries European Marine Site

The Carmarthen Bay and Estuaries European Marine Site is comprised of the following Natura 2000 sites:

- *Carmarthen Bay and Estuaries Special Area of Conservation;*
- *Carmarthen Bay Special Protection Area; and*
- *Burry Inlet Special Protection Area and RAMSAR.*

Carmarthen Bay and Estuaries SAC shares the same boundary as the EMS, whilst the Burry Inlet and Carmarthen Bay SPAs are wholly encompassed within the EMS boundary.

Table 3-6, Table 3-7, and Table 3-8 summarise the qualifying features of each of the sites, together with their individual conservation objectives and most recent condition assessment.

Table 3-6: Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
Sandbanks which are slightly covered by sea water all the time Estuaries Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays <i>Salicornia</i> and other annuals colonising mud and sand Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>)	Unknown	<ul style="list-style-type: none"> The conservation objective for these habitat features are to maintain at favourable conservation status their natural range and area covered, the structures and functions necessary for their long-term maintenance, and the conservation status of their typical species on a long-term basis.
Twaite shad <i>Allosa fallax</i> Allis shad <i>Alosa alosa</i> Otter <i>Lutra lutra</i> Sea lamprey <i>Petromyzon marinus</i> River lamprey <i>Lampetra fluviatilis</i>	Unknown	<ul style="list-style-type: none"> The conservation objective for the species features is to maintain at favourable conservation status their long-term population viability, natural range and the structure and function of their habitat within the site.

Table 3-7: Bae Caerfyrddin / Carmarthen Bay SPA

Feature	Condition from Core Management Plan including date of assessment	Conservation Objective
Common scoter	Favourable: Unclassified	<ul style="list-style-type: none"> The numbers of common scoter bird species are stable or increasing. The abundance and distribution of suitable prey are sufficient and appropriate to support population. All SPA birds are allowed to inhabit their feeding grounds and resting areas with minimum disturbance, and are allowed to move unhindered between them. All states of the Conservation Objectives for the supporting habitats and species, subject to natural processes, are fulfilled and maintained in the long-term.

Table 3-8: Burry Inlet SPA and RAMSAR

Feature	Condition From Core Management Plan including date of assessment	Conservation Objective
Northern Pintail Northern shoveler Teal Wigeon Dunlin Red knot Oystercatcher Curlew Grey plover Shelduck Redshank Intertidal mud- and sand- flats Saltmarsh Noteworthy flora Noteworthy fauna	Unknown	<ul style="list-style-type: none"> The numbers of all SPA bird species are stable or increasing. The abundance and distribution of suitable prey are sufficient and appropriate to support population. All SPA birds are allowed to inhabit their feeding grounds and resting areas with minimum disturbance, and are allowed to move unhindered between them. All states of the Conservation Objectives for the supporting habitats and species, subject to natural processes, are fulfilled and maintained in the long-term.

3.5 River Tywi SAC

Water flows within the River Tywi are regulated by releases from Llyn Brianne reservoir 20 km north of the SAC boundary. The river then flows in a broadly south-westerly direction to Llandeilo, and then westerly through Carmarthen to an outfall into Carmarthen Bay at Llansteffan. The Afon Tywi SAC boundary terminates in the tidal reaches just south of Carmarthen, where it enters the Carmarthen Bay and Estuaries SAC.

The qualifying features for this site are given in Table 3-9 with information on the existing condition of those qualifying features and the conservation objectives assigned to them. The table shows that the river is one of the best in Wales for otters with abundant food, good quality water and a “favourable” condition. The “unfavourable” status of the other qualifying features are to an extent the result of a precautionary assessment of feature distribution and abundance, and from the presence of adverse factors, in particular flow depletion and physical barriers to migration to aquatic species.

The impact of flow depletion downstream of major abstractions was assessed in the Environment Agency’s Review of Consents (RoC) process. The outputs of their hydraulic modelling suggested that changes to water depth and water velocities

occurring as a result of the abstraction at Capel Dewi were unlikely to impact upon the qualifying features of the River Tywi SAC (CCW, 2008b).

Table 3-9: River Tywi SAC

Feature	Condition From Core Management Plan incl. date of assessment	Conservation Objective
Twaite shad <i>Allosa fallax</i> Allis shad <i>Alosa alosa</i>	Unfavourable: Unclassified 2004	To reach favourable condition the features must meet the overall river objectives plus: <ul style="list-style-type: none"> • The population of the feature in the SAC is stable or increasing over the long term. • The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.
Otter <i>Lutra lutra</i>	Favourable 2004	<ul style="list-style-type: none"> • The population of otters in the SAC is stable or increasing over the long term and reflects the natural carrying capacity of the habitat within the SAC, as determined by natural levels of prey abundance and associated territorial behaviour. • The natural range of otters in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • The safe movement and dispersal of individuals around the SAC is facilitated by the provision, where necessary, of suitable riparian habitat, and underpasses, ledges, fencing etc at road bridges and other artificial barriers.
Sea lamprey <i>Petromyzon marinus</i> Bullhead <i>Cottus gobio</i>	Unfavourable: Unclassified 2004	<ul style="list-style-type: none"> • The population of the feature in the SAC is stable or increasing over the long term. • The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.
Brook lamprey <i>Lampetra planeri</i> River lamprey <i>Lampetra fluviatilis</i>	Favourable 2004	<ul style="list-style-type: none"> • The population of the feature in the SAC is stable or increasing over the long term. • The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.

4.1 Introduction

The location of the site allocation for the Growth Area GA3 Ammanford/ Cross Hands is shown on Figure 4. The growth areas include the settlements of Ammanford, Cross Hands, Tumble, Llandybie, Penygroes, Tycroes, Betws, Blaenau/Caerbryn, Drefach, Capel Hendre, Cefneithin, Gorslas, Saron and Castell y Rhingyll. The allocation is made up of Strategic Sites, mixed use sites, employment sites and residential sites. These sites have been allocated approximately 2552 housing units.

An assessment proforma has been completed for each of the sites within the Growth Area GA3 and this has recorded the potential impacts of each site allocation on the European Site network. The site allocation associated with GA3 has the potential to have both a spatial i.e. the impact is affected geographical location of the allocation, and non-spatial impact.

Table 4-1: Summary of the potential impacts from the GA3 site allocation on the European Site network. Sites marked * indicate planning permission applied/refused/ granted. Sites marked in red are within 2km of the SAC.

Site Allocation Reference	Settlement	Spatial					Non Spatial	
		Land take	Disturbance	Air quality	Fragmentation	Non-native species	Water quality	Water resource
GA3/E1	Cross Hands				■		■	■
GA3/E2	Cross Hands						■	■
GA3/E3	Cross Hands						■	■
GA3/E7	Cross Hands				■		■	■
GA3/E8	Cross Hands	■			■		■	■
GA3/E10	Capel Hendre				■		■	■
GA3/E11	Capel Hendre						■	■
GA3/E12	Tycroes						■	■
GA3/H1*	Ammanford Site completed						■	■
GA3/H2	Ammanford						■	■
GA3/H3*	Ammanford Part completed						■	■
GA3/H4*	Ammanford						■	■
GA3/H5*	Ammanford Site completed						■	■
GA3/H6	Ammanford						■	■
GA3/H7*	Ammanford						■	■
GA3/H8	Ammanford						■	■
GA3/H9*	Ammanford Part completed						■	■
GA3/H10	Ammanford						■	■
GA3/H11*	Ammanford Site completed						■	■
GA3/H12*	Ammanford						■	■
GA3/H13*	Ammanford						■	■
GA3/H14	Ammanford						■	■
GA3/H15*	Ammanford						■	■
GA3/H16	Ammanford						■	■

Site Allocation Reference	Settlement	Spatial					Non Spatial	
		Land take	Disturbance	Air quality	Fragmentation	Non-native species	Water quality	Water resource
GA3/H17	Ammanford						■	■
GA3/H18*	Ammanford Part complete						■	■
GA3/H19*	Ammanford Part complete						■	■
GA3/H20*	Tycroes				■		■	■
GA3/H21*	Tycroes Site complete						■	■
GA3/H22	Tycroes						■	■
GA3/H23	Tycroes						■	■
GA3/H24	Tycroes Site complete							
GA3/H25	Capel Hendre						■	■
GA3/H26*	Capel Hendre						■	■
GA3/H27*	Saron Part complete						■	■
GA3/H28*	Saron						■	■
GA3/H29	Llandybie						■	■
GA3/H30*	Llandybie						■	■
GA3/H31*	Llandybie Part complete						■	■
GA3/H32	Llandybie						■	■
GA3/H33	Blaenau/Caerbryn						■	■
GA3/H34*	Penygroes Site complete						■	■
GA3/H35	Penygroes				■		■	■
GA3/H36*	Penygroes Part complete						■	■
GA3/H37*	Penygroes				■		■	■
GA3/H38*	Penygroes Part complete	■					■	■
GA3/H39*	Penygroes						■	■
GA3/H40*	Castell Y Rhingyll						■	■
GA3/H41*	Gorslas Part complete						■	■
GA3/H42*	Gorslas						■	■
GA3/H43*	Gorslas						■	■
GA3/H44	Gorslas				■		■	■
GA3/H45*	Cross Hands						■	■
GA3/H46*	Cross Hands						■	■
GA3/H47*	Cross Hands	■			■		■	■
GA3/H48*	Cefneithin				■		■	■
GA3/H49	Cefneithin	■			■		■	■
GA3/H50*	Cefneithin Site complete	■					■	■
GA3/H51	Drefach (Tumble)						■	■
GA3/H52	Drefach (Tumble)						■	■
GA3/H53	Drefach						■	■
GA3/H54	Tumble						■	■
GA3/H55	Tumble						■	■
GA3/H56	Tumble						■	■
GA3/H57*	Tumble Part complete						■	■
GA3/H58	Tumble Site complete	■			■		■	■
GA3/H59	Cross Hands	■			■		■	■
GA3/H60	Cross Hands						■	■
GA3/MU1	Cross Hands	■			■		■	■
GA3/MU2*	Penygroes						■	■

The site allocation within 2km of the SAC also includes the following sites (see Appendix F); SC34/H2; and, SC34/H3. These sites however, will not result in any habitat loss or fragmentation.

The potential spatial impacts are entirely as a result of the sites geographic location and may result in impacts on the Caeau Mynydd Mawr SAC.

The Preferred Strategy HRA Screening also highlighted Cernydd Carmel SAC as potentially affected by the LDP. **However, on assessment the GA3 allocation is considered, that given the spatial location of each site, extremely unlikely to be a significant effect on the Cernydd Carmel SAC.**

The potential non-spatial impacts will occur regardless of geographic location and are entirely related to sewage/surface water discharges and water supply. These non-spatial impacts, particularly collectively, have the potential to affect the CBEEMS and the River Tywi SAC respectively.

4.2 Caeau Mynydd Mawr SAC

The potential spatial impacts resulting from the GA3 site allocation have been summarised in Table 4-2 and are discussed in greater detail in the following paragraphs. The area of influence of spatial impacts is only considered to be the marsh fritillary core landscape area as defined in the Core Management Plan (CCW 2008) as 2km from the SAC boundary. This area is shown on Figure 6. There are no sites allocated within the SAC boundary.

Table 4-2: Summary of potential impacts on Caeau Mynydd Mawr SAC

Potential impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
Air quality	Habitat loss as a result of increases in acid/nutrient deposition	Marsh Fritillary metapopulation & Molinia feature	Potential
Land take and fragmentation	Habitat loss – breeding habitat and connecting habitat	Marsh Fritillary metapopulation	Potential
Water quality	All Sewage Treatment Works are downstream of the SAC	None	No
Water resources	Water supply to proposed allocation will not affect the SAC	Marsh Fritillary metapopulation & Molinia feature	No

4.2.1 Air Quality

(i) Baseline

The Environment Agency Air Quality Assessment for the Caeau Mynydd Mawr SAC (EA, 2007) was reported in 2007 and the following information has been taken from this assessment.

Results from national air quality modelling and an Environment Agency air quality monitoring programme have been used to assess air pollution impacts on Caeau Mynydd Mawr SAC. Comparison of model and monitoring based estimates show that Monitored NO₂ and NO_x, levels are lower than modelled, SO₂ and NH₃ monitored levels are slightly higher than modelled.

- NO_x, SO₂ and NH₃ critical levels are not exceeded. However it cannot be concluded that the AOT40 for ozone is not exceeded.

- The minimum critical load of nutrient nitrogen for both features is not exceeded and will not be exceeded in 2010.
- The minimum acid critical load for both features is exceeded and will be exceeded in 2010.

Table 4-3: Summary of the modelled predicted critical loads for Marsh Fritillary Butterfly and Molinia Meadows (extracted from EA 2007 Air Quality Assessment Caeau Mynydd Mawr SAC)

Marsh Fritillary Butterfly and Molinia Meadows	Nutrient Nitrogen Deposition		Acid Deposition	
	2003	2010	2003	2010
Total % of Minimum Critical Load	93.88%	84.35%	173.33%	141.44%

The EA assessment indicates that critical levels of NO_x and SO₂ are not exceeded for the SAC.

(ii) Potential Impact

Negative changes in air quality can result in habitat loss. The features of the Caeau Mynydd Mawr SAC are considered to be sensitive to a number of air pollution hazards (EA, 2007).

Table 4-4: Summary of potential effects of air pollution

Air Pollution Hazards	Feature Potentially Affected
Acidification (SO _x & NO _x)	Molinia meadows – habitat deterioration
Nutrient Deposition (NO _x)	Marsh Fritillary – indirectly through habitat loss Molinia meadows – deterioration in diversity
Sulphur Dioxide	Molinia meadows – leaf discolouration
Nitrogen Oxide	Marsh Fritillary – indirectly through habitat loss Molinia meadows – deterioration in diversity

(iii) Test of Likely Significance

When assessing the potential effects of air pollution the following definition is used to distinguish the critical load and critical level. The critical load relates to the quantity of pollutant deposited from air to the ground, whereas the critical level is the gaseous concentration of a pollutant in the air (APIS website accessed 09/03/2011).

The site allocation will not directly contribute to any changes in air quality as there are no process industry regulated sites proposed within the LDP allocation. However, it could be argued that the LDP allocation that includes both residential and employment use has the potential to contribute to changes in air quality via changes in traffic emissions and energy consumption.

The site allocation has focussed on areas with good existing transport links therefore it is considered that changes in levels as a result of traffic emissions unlikely to be negatively affected.

The total % of the minimum critical load decreased between 2003 and 2010 despite continued population growth therefore it is reasonable to assume that this trend will continue with improvements in industry standards etc. Therefore the indirect impacts on air quality from energy consumption as a result of the site allocation are considered unlikely to have a significant effect.

It is considered that the change in air quality resulting from the site allocation is extremely unlikely to have significant effect on the features of the Caeau Mynydd Mawr SAC.

(iv) In-combination Test of Likely Significance

As there are no likely significant air quality impacts as a result of the site allocation, no in-combination assessment has been considered to be required.

4.2.2 Land-take

(i) Baseline

The recent habitat quality survey Smith and Gander (2010) of the wider marsh fritillary landscape area indicated that within 2km of the SAC there was 85.71 hectares of suitable habitat with 9.82 hectares considered to be in good condition.

The site allocation within 2km of the SAC consists of 34 sites . Thirty two sites are associated with Growth Area 3 and two associated with Sustainable Community SC34.

The allocation is made up of employment sites, mixed use sites and residential only sites. The site allocation has been carried out with due consideration of the Preferred Strategy HRA Screening report and in consultation with the Technical Working Group which includes the County Ecologist, CCW, EA, DCWW and other key stakeholders. One of the key factors in determining the site allocation has been avoidance of suitable marsh fritillary habitat within the marsh fritillary core landscape area (All areas within 1km of a marsh fritillary record) as defined by Smith and Gander (2010) and modified following discussion with NRW. The modified core landscape area is also shown on Figure 6.

(ii) Potential Impact – Habitat Loss

Table 4-5 shows the habitat suitability composition of the proposed site allocation within 2 km of the SAC and Table 4-6 shows the habitat suitability composition of the proposed site allocation within the modified core marsh fritillary landscape area (after Smith and Gander 2010).

Table 4-5: Approximate areas of Marsh Fritillary habitat lost to the site allocation (within the 2km of SAC)

Habitat Suitability	Number of discrete areas	% of available 2km meta – population area (discrete areas lost)	Hectares lost	% of available 2km meta – population area (hectares lost)
Good Condition	28	15.3	0.30	3.0
Potential (Rank)	9		4.03	
Suitable (Over-Grazed)	4		0.04	
Suitable (Sparse)	10			
Suitable (Under-Grazed)	13		0.08	
Sub Total			4.71	5.5
Not Suitable	8			
Scrub	1			
No Access	0			

Table 4-6 Approximate areas of Marsh Fritillary habitat lost to the site allocation (within the modified core landscape area)

Habitat Suitability	Number of discrete areas	% of available modified core landscape area (discrete areas lost)	Hectares lost	% of available modified core landscape area (hectares lost)
Good Condition	28	5.9	0.3	1.4
Potential (Rank)	16		4.05	
Suitable (Over-Grazed)	4		0.05	
Suitable (Sparse)	10		0.25	
Suitable (Under-Grazed)	16		0.13	
Sub Total			4.78	1.8
Scrub	1		0.12	
No Access	0		0	
Not Suitable	8		6.88	

(iii) Test of Likely Significance

Both tables have been put together to allow a full impact assessment on the marsh fritillary metapopulation due to site allocation. The core landscape area defined by CCW in the Core Management Plan as 2km from the SAC has been used primarily to make the assessment as this is most relevant to the conservation objectives. The assessment against the much larger modified core marsh fritillary landscape area as defined by Smith and Gander (2010) shows that the site allocation as having less of an effect on suitable habitat with only 1.8% lost.

Table 3-3 and Table 3-4 indicate that the majority of the habitat that is considered to be in good condition is recorded within 2km of the SAC. The amount of habitat within this area is less than the 10 hectares (CCW 2008) that is considered sufficient to maintain the marsh fritillary in favourable conservation status, although the amount of suitable habitat available is higher than the recommended 50 hectares (CCW, 2008).

The site allocation within 2km of the SAC will result in the loss of 0.30 hectares of good condition habitat and a total of 4.71 hectares of suitable habitat (good condition, suitable and potential quality). While this loss does not affect the

availability of the recommended 50 hectares of suitable habitat it does reduce the amount of good condition habitat by 3.0%, therefore continuing to degrade the marsh fritillary’s already unfavourable conservation status.

(iv) Potential Impact – Fragmentation

The areas of suitable habitat used by the marsh fritillary meta-population are already highly fragmented (CCW, 2008) within the 2km of the SAC. Early findings of an as yet unpublished study investigating the landscape permeability in the Cross Hands area highlighted buildings, woodlands and some hedgerows as features which reduced the landscape permeability for the marsh fritillary. The findings of the model that this study created has indicated areas throughout the modified core landscape area (after Smith and Gander 2010) where landscape permeability is considered better.

On reviewing the GA3 site allocation against these results it indicated that 12 proposed sites (within 2km of the SAC) were in locations that coincided with more permeable landscape features.

(v) Test of Likely Significance

There is not sufficient evidence to determine whether or not the potential fragmentation impact is likely to be significant. The conservation objectives of the SAC do not have a performance indicator relating to habitat fragmentation so there is no way of measuring the impact either. ***Therefore it is considered that without mitigation, habitat fragmentation as a result of the GA3 site allocation (within 2km of the SAC) is unknown, and therefore has the potential to have a significant effect on the marsh fritillary meta-population.***

(vi) In-combination Test of Likely Significance

Other projects and plans that have the potential to result in habitat loss within the marsh fritillary area are shown in the table below.

Table 4-7: Summary of potential in-combination effects as a result of land take

Other Project or Plan	Likely Significant Impact
Regional Transport Plan – promotes the Cross Hands Economic Link Road (ELR) project	The Cross Hands ELR proposals are within 2 km of the SAC and are highly likely to result in the loss of both suitable and good condition habitat.
Regional Waste Plan – No new allocations have been highlighted in the Cross Hands area	None
Regional Aggregates Plan - No new allocations have been highlighted in the Cross Hands area	None

Without mitigation it is considered that the proposed site allocation alone and in-combination with the Cross Hands ELR has the potential to have a likely significant effect on the marsh fritillary metapopulation of the Caeau Mynydd Mawr SAC.

(vii) Mitigation Measures

Whilst each individual site allocation could provide mitigation for the loss of suitable marsh fritillary habitat through impact avoidance in some cases and appropriate habitat creation in others; it is considered that the risk of deferring the assessment to the detailed planning level is high and unlikely to be the most effective way of ameliorating this impact.

Mitigation for the potential effects on Caeau Mynydd Mawr SAC has been developed through the LDP process and is in the form of LDP policy EQ7 and Supplementary Planning Guidance (SPG).

- *The Caeau Mynydd Mawr SPG provides guidance in relation to the consideration of proposals for potential developments impacting upon the SAC and the need to establish a management strategy to ameliorate for the loss of and secure the ongoing and future management of habitat used by the marsh fritillary butterfly metapopulation. The SPG provides a framework for sufficient land to be managed in order to seek to provide a minimum 100ha of suitable habitat. The implementation of the SPG (land management) is delivered via a project officer who is in post (as of 2013).*
- *Policy EQ7 which sets out the SPG area within which development proposals will be required to contribute towards increasing the quality and amount of suitable habitat for marsh fritillary butterfly.*

With the mitigation strategy in place it is considered that the potential habitat loss of the proposed site allocation alone and in-combination with the Cross Hands ELR will be extremely unlikely to have a significant effect on the marsh fritillary metapopulation of the Caeau Mynydd Mawr SAC.

The issue of fragmentation is more difficult to provide mitigation for at a strategic level. The habitat management strategy that arises from Policy EQ7 and the Caeau Mynydd Mawr SPG is also intended to improve connectivity for the butterfly.

With the mitigation strategy in place it is considered that the potential fragmentation of the site allocation will be extremely unlikely to have a significant effect on the marsh fritillary metapopulation of the Caeau Mynydd Mawr SAC.

4.3 Carmarthen Bay and Estuaries EMS

The potential impacts from the GA3 site allocation have been summarised in the table below and are discussed in greater detail in the following paragraphs. The impacts are non-spatial, i.e. the impact is not affected geographical location of the allocation, and are solely related to water quality.

Table 4-8: Summary of the potential impacts on the CBEEMS

Potential Impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
Air Quality	N/A	Features not considered vulnerable (CCW 2009)	No
Water Quality	All STWs servicing the Cross Hands and Ammanford area.	All	Potential
Water Supply and Hydrology	N/A to this European Site	All	No
Disturbance	N/A		No
Landtake and Fragmentation	N/A		No
Non native species	N/A		No

4.3.1 Water Quality

(i) Baseline

The Sewage Treatment Works that are likely to service the GA3 Site Allocation are shown on Figure 4 and summarised in Table 4-9. Dŵr Cymru Welsh Water (DCWW) is the authority in Carmarthenshire responsible for providing sewage treatment.

Table 4-9: Summary of Sewage Treatment Works in GA3 Site Allocation Area (Extracted from DCWW data provided 25/02/2011)

Sewage Treatment Works	Treatment Type	Receiving Watercourse	Approx distance to CBEEMS
Cross Hands	Tertiary A1-AS	Afon Gwili	13km
Cwmgwili	Secondary – Bio-filters	Afon Gwili	10km
Penygroes & Blaenau	Secondary – Bio-filters	Afon Lash	20km
Garnswllt	Tertiary A2-AS	River Loughor	15km

The Environment Agency (EA) control the discharges from these sewage treatment works via discharge permits issued to DCWW which have set limits on a number of parameters to protect the receiving watercourse.

The water quality (chemistry) in each of the receiving watercourses is set out below based on the 2009 data given on the Environment Agency website (www.environment-agency.gov.uk – accessed 14/03/2011).

- Afon Gwili (near Cross Hands) – Good.
- Afon Gwili (at confluence with Loughor) – Good.
- Afon Lash (near Blaenau) – Good.
- Afon Lash (at confluence with Loughor) – Good.
- River Loughor (near Garnswllt) – Very Good.
- River Loughor (~3 km upstream of CBEEMS) – Very Good.

(ii) Potential Impact

There is potential for the site allocation to have an indirect impact on the water quality of the receiving watercourses, which are part of the catchments that flow in to the CBEEMS.

The water quality of the River Loughor prior to entering the CBEEMS is considered to be very good, therefore in simple terms the existing sewage treatment discharges from the Ammanford/ Cross Hands area are not affecting the water quality entering the CBEEMS.

The GA3 site allocation has been proposed to cover the plan period from 2006 to 2021 and will be phased throughout this period. The allocation sites will all have to go through or have been through the planning process, which includes consultation with NRW and DCWW.

A review of the planning permissions granted in the GA3 area over recent years (Carmarthenshire Planning Portal internet site accessed January 2011) indicated that when a site receives planning permission it may also have a condition that does not allow its connection to the sewage treatment network unless there is the appropriate capacity.

The deposit draft LDP also includes a number of policies that will also mitigate any potential effects on the water quality of receiving watercourses, and these include:

- GP1 Sustainability and High Quality Design;
- GP4 Infrastructure and New Development;
- EP1 Water Quality and Resource;
- EP2 Pollution; and,
- EP3 Sustainable Drainage.

NRW also review discharge consents and work with DCWW to ensure that the watercourses are protected with the increased demand for sewage treatment as site allocations are taken up.

(iii) Test of Likely Significance

Given the safeguards that are in place to protect the water quality of the receiving watercourses and the very good water quality entering the CBEEMS in the existing sewage discharge situation ***it seems reasonable to consider the proposed GA3 site allocation will have no likely significant impacts on the water quality of the CBEEMS.***

(iv) In-combination Test of Likely Significance

There are not considered to be any other plans or projects within the Ammanford Cross Hands area that could result in a significant effect upon the water quality of the CBEEMS in-combination with the GA3 site allocation.

4.4 River Tywi SAC

The potential impacts from the GA3 site allocation have been summarised in the table below and are discussed in greater detail in Section 4.4.1. The impacts are non-spatial, i.e. the impact is not affected geographical location of the allocation, and are solely related to water supply/resource.

Table 4-10: Summary of the potential impacts on the CBEEMS

Potential Impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
Air Quality	N/A		No
Water Quality	N/A to this European Site		No
Water Supply and Hydrology	The water supply for the proposed allocation will come from the Nantgaredig abstraction point on the River Tywi.	All	Potential
Disturbance	N/A		No
Landtake and Fragmentation	N/A		No
Non native species	N/A		No

4.4.1 Water Resource

(i) Baseline

The allocation is made up of 8 employment sites and 62 residential sites. These residential sites have been allocated approximately 2552 housing units. Of the 62 residential sites, 38 (1219 units) have planning permission and of these 21 (501 units) have been completed or are under construction.

The water supply for the site allocation will come from the River Tywi at Nantgaredig. The Catchment Abstraction Management Plan for the Tywi, Taf and Gwendraeth (EA 2006) states that *“The Tywi is regulated from Llyn Brianne by Dŵr Cymru Welsh Water by virtue of an Operating Agreement with the Environment Agency Wales. Water is released from the reservoir to support abstraction at Nantgaredig and, on occasion, to augment flows in the Tywi. This abstraction makes a strategic contribution to the South Wales public water supply.”*

The Catchment Abstraction Management Plan for the Tywi, Taf and Gwendraeth (EA 2006) states that there is water available throughout the catchment, indicating that the existing abstraction strategy appears not to be having an impact on the River Tywi SAC.

The abstraction process is regulated by the EA and through its' Review of Consents' (RoC) process which identifies any potential impacts to the SAC . The conclusion of the RoC process on the River Tywi has resulted in a number of existing discharges and abstractions being amended to result in no significant impacts on the River Tywi SAC.

(ii) Potential Impact

The GA3 Site Allocation may result in a public water supply demand that exceeds the minimum requirements for the River Tywi SAC to remain in a favourable conservation status.

The release of water from Llyn Brianne is managed by DCWW in consultation with NRW. It supports abstraction for public water supply at Nantgaredig, and if required augment flows in the River Tywi. It has been assumed that this is carried out in accordance with the conservation objectives of the SAC, namely *“Flows, water quality, substrate quality and quantity at fish spawning sites and nursery areas will not be depleted by abstraction, discharges, engineering or gravel extraction activities or other impacts to the extent that these sites are damaged or destroyed.”*

The LDP also includes a number of policies that will also mitigate any potential effects on the water resource requirements, and these include:

- GP1 Sustainability and High Quality Design;
- GP4 Infrastructure and New Development; and,
- EP1 Water Quality and Resource.

(iii) Test of Likely Significance

It is considered that the continued management by DCWW and NRW of the River Tywi flows via releases from the Llyn Brianne reservoir are an appropriate safeguard to protecting the SAC, ***therefore the GA3 site allocation is considered unlikely to have a significant impact on the River Tywi SAC.***

(iv) In-combination Test of Likely Significance

There are potential in-combination effects on the water resource of the River Tywi of the LDP site allocation as a whole, and any other private abstractions for the river.

The abstraction process is regulated by the NRW and through its' Review of Consents' (RoC) process which identifies any potential impacts upon the SAC . The

conclusion of the RoC process on the River Tywi has resulted in a number of existing discharges and abstractions being amended to result in no significant impacts on the River Tywi SAC.

It is considered that the management by DCWW and NRW of the River Tywi flows via releases from the Llyn Brienne reservoir are an appropriate safeguard to protecting the SAC. ***Therefore no likely significant effects on water resources of the River Tywi SAC are anticipated from the GA3 site allocation alone or in combination with any other abstractions.***

The aim of this report was to assess the Growth Area 3 (GA3) Ammanford/ Cross Hands site allocation on the European Sites Network.

The European sites in close proximity to the allocation and could be subject to spatial impacts from the site allocation are:

- *Caeau Mynydd Mawr SAC; and,*
- *Cernydd Carmel SAC.*

The site allocation also has the potential to have non-spatial impacts via sewage discharge and water demand. The European sites potentially affected are:

- *Carmarthen Bay and Estuaries European Marine Site; and,*
- *River Tywi SAC.*

The table below summarises the potential effects on the European sites.

Table 5-1: Summary of potential effects on the European Sites (prior to detailed assessment)

European Site	Potential Impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
Caeau Mynydd Mawr SAC	Air quality	Habitat loss as a result of increases in acid/nutrient deposition	Marsh Fritillary metapopulation & Molinia feature	Potential
	Land take and fragmentation	Habitat loss – breeding habitat and connecting habitat	Marsh Fritillary metapopulation	Potential
	Water quality	All STWs are downstream of the SAC	None	No
	Water resources	Water supply to proposed allocation will not affect the SAC	Marsh Fritillary metapopulation & Molinia feature	No
	Non-native species	No impacts anticipated to affect SAC	N/A	No
Cernydd Carmel SAC	Air quality	No impacts anticipated	Not affected	No
	Land take and fragmentation	No impacts anticipated	Not affected	No
	Water quality	No impacts anticipated	Not affected	No
	Water resources	No impacts anticipated	Not affected	No
	Non-native species	No impacts anticipated	Not affected	No
Carmarthen Bay and Estuaries EMS	Air quality	N/A	Features not considered vulnerable (CCW 2009)	No
	Water quality	All STWs servicing the Cross Hands and Ammanford area.	All	Potential
	Water resources	N/A to this European Site	All	No

European Site	Potential Impacts (from screening report)	Potential Effects of Growth Area Site Allocation	European Site Feature	Likely to Affect Conservation Status
	Disturbance	N/A		No
	Land take and fragmentation	N/A		No
	Non-native species	N/A		No
River Tywi SAC	Air quality	N/A		No
	Water quality	N/A to this European Site		No
	Water resources	The water supply for the proposed allocation will come from the Nantgaredig abstraction point on the River Tywi.	All	Potential
	Disturbance	N/A		No
	Land take and fragmentation	N/A		No
	Non-native species	N/A		No

The assessment process concluded that the GA3 site allocation is considered to be unlikely to have a significant effect on the following sites:

- *Caeau Mynydd Mawr SAC (All impacts except Land take and Fragmentation);*
- *Cernydd Carmel SAC;*
- *Carmarthen Bay and Estuaries European Marine Site; and,*
- *River Tywi SAC.*

The GA3 site allocation has the potential to have a significant impact on the Caeau Mynydd Mawr SAC marsh fritillary metapopulation as a result of the land-take for the sites. The land-take has the potential to result in both habitat loss and fragmentation within the metapopulation 2km landscape area. The mitigation strategy that has been incorporated into the LDP will mitigate for the impacts and result in **no adverse impacts** on the conservation objectives for the marsh fritillary.

With the mitigation in place the GA3 site allocation is considered to have **no significant** effect on the integrity of the Caeau Mynydd Mawr SAC.

This strategic plan level HRA does not obviate the need for further HRA at more detailed planning levels and it is recommended that this strategic plan level work informs and supports project specific HRA where it is required.

- Countryside Council for Wales (2008) Core Management Plan including Conservation Objectives for Caeau Mynydd Mawr Special Area of Conservation (SAC). Version: 11 Date: 15 April 2008
- Countryside Council for Wales (2008a) Core Management Plan including Conservation Objectives for Cernydd Carmel SAC (Special Area of Conservation) Version: 9 Date: 15 April 2008
- Countryside Council for Wales (2008b) Core Management Plan including Conservation Objectives for Afon Tywi / River Tywi SAC (Special Area of Conservation) Version: 11 Date: 15 April 2008
- Countryside Council for Wales (2009) Carmarthen Bay and Estuaries European Marine Site comprising: Carmarthen Bay and Estuaries Special Area of Conservation, Carmarthen Bay Special Protection Area, Burry Inlet Protection Area & Ramsar Site. Advice provided by the Countryside Council for Wales in fulfilment of Regulation 33 of the Conservation (Natural Habitats, &c.) Regulations 1994, February 2009
- David Tyldesley and Associates and the Welsh Assembly Government October 2006 and 2009 Update Draft Guidance: The Assessment of Development Plans in Wales under the Provisions of the Habitats Regulations
- Dŵr Cymru Welsh Water (2008) Draft Water Resources Management Plan – Main Report March 2008
- Dŵr Cymru Welsh Water (2009) Water Resources Management Plan Draft Habitats Regulations Assessment. Produced by Entec UK Limited Jan 2009
- Dŵr Cymru Welsh Water (2010) Final Business Plan 2010-1015. Accessed via DCWW website 28 Mar 2011.
- Environment Agency Annex to Appendix 21 Final Air Pollution Assessment Caeau Mynydd Mawr SAC. Version 2, March 2007
- Environment Agency Habitats Directive Fact sheet River Tywi SAC www.environment-agency.gov.uk accessed 11 Mar 2011
- Environment Agency Review of Consents Stage 3 Assessment Caeau Mynydd Mawr SAC Version 3, August 2009
- European Commission (2000) Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission, Brussels.
- European Commission (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC”
- Fowles, A. P. 2005. Habitat Quality Mapping for Marsh Fritillary Populations. Staff Science report No. 05/5/1.
- Fowles, A.P. 2003. Guidance notes for the definition and mapping of habitat quality for marsh fritillaries. Natural Science Report. 03/5/1. Countryside Council for Wales.
- Jacobs (2009) Habitats Regulations Assessment Preliminary Screening for the Preferred Strategy, Carmarthenshire County Council Sept 2009.
- Lovering, T. 2006. Caeau Mynydd Mawr SAC Monitoring Report. CCW Internal Report.
- Smith & Gander (2010) Landscape-Scale Habitat Quality Survey for the Marsh Fritillary Butterfly around Caeau Mynydd Mawr SAC, Carmarthenshire 2009.

Smith, R.G., Stewart, B. & Pryce, R.D. 2002. Assessment of marsh fritillary habitat at Mynydd Mawr, Cross Hands, Carmarthenshire, 2001. CCW Contract Science. 500. Countryside Council for Wales.

South Wales Regional Aggregates Working Party (2008) Regional Aggregates Plan - REGIONAL TECHNICAL STATEMENT for the area covered by the South Wales Regional Aggregates Working Party October 2008.

South West Wales Integrated Transport Consortium (SWITCH) (2008) Provisional Regional Transport Plan for South West Wales December 2008.

South West Wales Regional Waste Plan 1st Review August 2008.

Welsh Assembly Government (2009) National Transport Plan

Welsh Assembly Government (2009) Technical Advice Note 5: Nature Conservation and Planning

Welsh Assembly Government (2009b) National Transport Plan Habitats Regulations Assessment Screening Report – Consultation version September 2009

Appendix E Detailed Site Assessment Proforma GA1, GA2 and GA3



Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H1	
Settlement	Carmarthen	
Name	Penymorfa	
Type	Residential	
Size	180 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 180 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. River flow regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	180 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H2	
Settlement	Carmarthen	
Name	Adjacent Bryn Meurig	
Type	Residential	
Size	43 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 43 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	43 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H3	
Settlement	Carmarthen	
Name	Mounthill	
Type	Residential	
Size	80 Units (48 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 80 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	80 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H4	
Settlement	Carmarthen	
Name	Rhiw Babell	
Type	Residential	
Size	14 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 14 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	14 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H5	
Settlement	Carmarthen	
Name	Former Hospital, Priority Street	
Type	Residential Planning permission refused 08/01/2009 W/16007	
Size	12 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 12 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	12 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H6	
Settlement	Carmarthen	
Name	Former BT Exchange Building, Spilman Street	
Type	Residential Planning permission granted 14/06/2006 W/10997	
Size	14 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 14 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	14 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H7	
Settlement	Carmarthen	
Name	Former DJK Buildings, Pentrefelin Street	
Type	Residential Outline planning permission granted 21/02/2008 W/18075	
Size	14 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 14 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	14 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H8	
Settlement	Carmarthen	
Name	Former Health Authority Buildings, Penlan Road	
Type	Residential Planning permission granted 10/12/2007 W/16843	
Size	8 Units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	8 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H9	
Settlement	Carmarthen	
Name	Parc Thomas	
Type	Residential	
Size	9 Units (4 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	9 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H10	
Settlement	Carmarthen	
Name	Parc y Delyn	
Type	Residential	
Size	35 (20 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 35 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	35 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H11	
Settlement	Carmarthen	
Name	Springfield Road	
Type	Residential	
Size	30 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 30 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	30 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H12	
Settlement	Carmarthen	
Name	Land south of Pant Glas, Bronwydd Road	
Type	Residential	
Size	15 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 15 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	15 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H13	
Settlement	Carmarthen	
Name	Bronwydd Road, South	
Type	Residential	
Size	45 Units (22 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 45 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	45 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H14	
Settlement	Carmarthen	
Name	Former Coach Depot, Abergwili	
Type	Residential	
Size	9 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	9 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H15	
Settlement	Carmarthen	
Name	Former MAFF Depot	
Type	Residential	
Size	18 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply; Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges). Commuting otter on Afon Gwili (tributary of Afon Tywi) - potential disturbance.</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Potential disturbance to otter	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 18 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	18 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H16	
Settlement	Carmarthen	
Name	Ashgrove	
Type	Residential	
Size	20 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 20 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	20 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H17	
Settlement	Carmarthen	
Name	College Road (ext)	
Type	Residential Planning permission granted 18/02/2010 W/16994	
Size	153 Units (88 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 153 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	153 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H18	
Settlement	Carmarthen	
Name	Penybont Farm, Llysonnen Road	
Type	Residential	
Size	16 Units (7 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl potential disturbance of commuting otter via the Tawelan Brook</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
	Site immediately adjacent Tawelan Brook, a tributary of the Afon Tywi SAC.	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 16 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	16 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity and protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation	
Reference Number	GA1/H19
Settlement	Carmarthen
Name	Bronwydd Road North
Type	Residential
Size	9 Units (3 completed)
Any link to European sites	<i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i> Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).
Potential issues for European sites (only if link shown)	
Spatial	<i>Describe any specific issues</i>
Land take	none
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units, each discharging approx 400l water per day.
	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru
	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	9 units each requiring on average 400l/unit/day.
	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H20	
Settlement	Carmarthen	
Name	College Road	
Type	Residential	
Size	14 units (completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 14 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	14 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/H21	
Settlement	Carmarthen	
Name	Rhiw Babell extension	
Type	Residential	
Size	16 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	e.g. waterside development impacts on waders and wildfowl none	
Air quality	e.g. waste disposal/landfill site or industrial development none	
Fragmentation	e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) none	
Non Native/Invasive Species	e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 16 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. Estuary flow through regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	16 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/MU1	
Settlement	Carmarthen	
Name	West Carmarthen	
Type	Mixed	
Size	85.51 ha (total) 5.45 ha (Employment) 1100 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via Tawelan Brook WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Potential disturbance of commuting otter via the Tawelan Brook which bisects the site	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> potential fragmentation of commuting otter habitat via the Tawelan Brook which bisects the site	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> Site bisected by the Tawelan Brook, a tributary of the Afon Tywi SAC.	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 1100 units, each discharging approx 400l water per day.	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. River flow regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	1100 units each requiring on average 400l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental Capacity and Protection	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/MU2	
Settlement	Carmarthen	
Name	Pibwyrlywyd	
Type	Mixed	
Size	34.83ha (total) 15.50ha (Employment) 0 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC (WWTW discharge and water supply) which flows in to Carmarthen Bay and Estuaries EMS (WWTW discharges).</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> none	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> none	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for mixed use site	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. River flow regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Water supply for mixed use site	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA1/E1	
Settlement	Carmarthen	
Name	Cillefwr Industrial Estate	
Type	Employment	
Size	4.38ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Afon Tywi SAC and later, Carmarthen Bay and Estuaries EMS (WWTW discharges).</p> <p>Tawelan Brook (a tributary of the River Tywi SAC) runs immediately adjacent to the site.</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	none	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Potential disturbance issues with commuting otters	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i> none	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> none	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i> Potential dispersal of species by construction activities if present next to watercourse.	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for employment site	Carmarthen and Parc y splott Sewage Treatment Works– capacity unknown – upgraded in 1997. River flow regulated by releases from Llyn Brianne reservoir.
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Foul drainage for employment site	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Potential Afon Tywi SAC and later ,Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Policies in place re Environmental capacity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required i.e. reducing potential impact on otter.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/E1	
Settlement	Dafen, Llanelli	
Name	Dafen, Llanelli	
Type	Employment	
Size	22.80ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for site WWTW – Llanelli Coastal or Llangennech Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Drainage of surface water from the site	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for site	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H1	
Settlement	Pwll	
Name	Beech Grove, Pwll, Llanelli	
Type	Residential	
Size	10 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 10 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 10 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H2	
Settlement	Llanelli	
Name	Former Stradey Park, Llanelli	
Type	Residential	
Size	355 units (Planning Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 355 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 355 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H3	
Settlement	Llanelli	
Name	Glasfryn Nursery, Llanerch, Llanelli	
Type	Residential	
Size	9 units (4 units completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 9 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H4	
Settlement	Llanelli	
Name	Llys Yr Hen Felin - Former Buckleys Brewery, Llanelli	
Type	Residential	
Size	69 units (37 units completed and 12 units planning completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 69 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 69 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H5	
Settlement	Llanelli	
Name	Paragon Laundry, Lakefield, Llanelli	
Type	Residential	
Size	7 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 7 units WWTW – Llanelli Sewage Treatment Work	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately. Small urban site, innovative design required.
Water resources (supply)	Supply for 7 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H6	
Settlement	Llanelli	
Name	Llys Arthur - Arthur Street and Robinson Street, Llanelli	
Type	Residential	
Size	5 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 5 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Very small site this will need an innovative solution.	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 5 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H7	
Settlement	Llanelli	
Name	Adjacent to Ann Street, Llanelli	
Type	Residential	
Size	12 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 12 units WWTW – Llanelli Sewage Treatment Works?	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Very small site this will need an innovative solution.	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 12 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site appears to be completed – assume therefore as planning given then no effect on European sites.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation	
Reference Number	GA2/H8
Settlement	Llanelli
Name	Heol Goffa, Dimpath
Type	Residential
Size	30 units
Any link to European sites	<i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i> Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)
Potential issues for European sites (only if link shown)	
Spatial	<i>Describe any specific issues</i>
Land take	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 30 units WWTW – Llanelli Sewage Treatment Works
	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	LDP policy: split foul and surface water. Very small site this will need an innovative solution.
	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 30 residential units
	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H9	
Settlement	Llanelli	
Name	Former Garage, Marsh Street, Llanelli	
Type	Residential	
Size	25 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 25 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 25 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation	
Reference Number	GA2/H10
Settlement	Seaside
Name	Cambrian Place, Seaside, Llanelli
Type	Residential
Size	5 units (Planning Completed)
Any link to European sites	<i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i> Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)
Potential issues for European sites (only if link shown)	
Spatial	<i>Describe any specific issues</i>
Land take	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 5 units WWTW – Llanelli Sewage Treatment Works
	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Very small site this will need an innovative solution.
	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 5 residential units
	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H11	
Settlement	Llanelli	
Name	The Croft, Queen Victoria Road, Llanelli	
Type	Residential	
Size	5 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 5 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Very small site this will need an innovative solution.	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 5 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H12	
Settlement	LLanelli	
Name	Pentre Nicklaus Village, Machynys	
Type	Residential	
Size	37 units (26 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link almost adjacent to the CBEEMS (approx 60m southwest) Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Potential for disturbance of bird species in particular and potentially otter. Limited to the construction phase and unlikely as area already disturbed by existing housing.	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 37 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 37 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage LDP policies to protect, promote and reduce loss of biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include separate surface water drainage system and any construction measures to ameliorate any potential impacts as appropriate.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H13	
Settlement	Morfa	
Name	The Avenue, Morfa	
Type	Residential	
Size	60 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl Potential disturbance to both birds and otters, especillay during construction</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 60 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainaing	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 60 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H14	
Settlement	Llanelli	
Name	Machynys West	
Type	Residential	
Size	205 units (73 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link almost adjacent to the CBEEMS (approx 10m southwest) Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Potential for disturbance of bird species in particular and potentially otter. Limited to the construction phase and unlikely as area already disturbed by existing housing.	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 205 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 205 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage LDP policies to protect, promote and reduce loss of biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include separate surface water drainage system and any construction measures to ameliorate any potential impacts as appropriate.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H15	
Settlement	Llanelli	
Name	The Avenue	
Type	Residential	
Size	60 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 60 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 60 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include separate surface water drainage system and any construction measures to ameliorate any potential impacts as appropriate.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H16	
Settlement	Llanelli	
Name	Former Stripmill R/O 60 Coedcae Road, Llanelli	
Type	Residential	
Size	21 units (12 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 21 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	LDP policy: split foul and surface water. Very small site this will need an innovative solution.	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 21 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H17	
Settlement	Llanelli	
Name	Rear Of 60 Coed Cae Road, Llanelli	
Type	Residential	
Size	5 units (Planning completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 5 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	LDP policy: split foul and surface water.	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 5 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H18	
Settlement	Llanelli	
Name	Land at Penalt (Stebonheath Land South of Cae Terrace), Llanelli	
Type	Residential	
Size	60 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 60 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 60 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H19	
Settlement	Llanelli	
Name	Land at Nightingale Court, Land south of Glynco, Llanelli	
Type	Residential	
Size	50 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 50 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 50 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H20	
Settlement	Llanelli	
Name	Land at Brynallt Terrace, Llanelli	
Type	Residential	
Size	5 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 5 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 5 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site completed therefore no effect assumed as planning permission given.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H21	
Settlement	Llanelli	
Name	Land off Frondeg Terrace, Penallt, Llanelli	
Type	Residential	
Size	69 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 69 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 69 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H22	
Settlement	Llanelli	
Name	Byntirion, Llanerch, Llanelli	
Type	Residential	
Size	34 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 34 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 34 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H23	
Settlement	Llanelli	
Name	Opp. Playing fields, Llanerch, Llanelli	
Type	Residential	
Size	12 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 12 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 12 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H24	
Settlement	Llanelli	
Name	Adjacent Parc Brynmawr, Land at Pentrepoeth, Llanelli	
Type	Residential	
Size	100 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 100 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 100 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H25	
Settlement	Llanelli	
Name	Marley House, Llanelli	
Type	Residential	
Size	5 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 5 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Very small site this will need an innovative solution.	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 5 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H26	
Settlement	Llanelli	
Name	Rear Off 31A Swiss Valley, Felinfoel, Llanelli	
Type	Residential	
Size	6 units (Planning completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 6 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 6 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated. Part of the site has already been developed and it has been assumed that the planning permission given means there are no likely significant effects.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H27	
Settlement	Llanelli	
Name	Dafen East Gateway	
Type	Residential	
Size	150 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 150 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 150 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H28	
Settlement	Dafen	
Name	Adjacent Cilsaig Farm, Dafen	
Type	Residential	
Size	8 units (Planning completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 8 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H29	
Settlement	Dafen, Llanelli	
Name	Southern Unit Avon Inflatables Site, Dafen	
Type	Residential	
Size	60 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 60 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 60 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H30	
Settlement	Llanelli	
Name	Adjacent Gors Fach, Penceiliogi, Dafen	
Type	Residential	
Size	185 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 185 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 185 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H31	
Settlement	Llanelli	
Name	Land off Bryncoch, Penceiliogi, Dafen	
Type	Residential	
Size	125 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 125 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 125 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H32	
Settlement	Llanelli	
Name	Bryncoch West, Dafen	
Type	Residential	
Size	15 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 15 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 15 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H33	
Settlement	Llanelli	
Name	Bryncoch East, Dafen	
Type	Residential	
Size	26 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 26 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 26 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H34	
Settlement	Llanelli	
Name	Land to Rear 45-79 Pemberton Road, Pemberton	
Type	Residential	
Size	9 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 9 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H35	
Settlement	Llanelli	
Name	Land at Maesaerddafen Road Erw Las, Cefncaeau	
Type	Residential	
Size	300 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 300 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 300 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H36	
Settlement	Llanelli	
Name	Former Catholic Church, Llwynhendy Road	
Type	Residential	
Size	13 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 13 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 13 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H37	
Settlement	Llanelli	
Name	Land at Parc Gitto, Llwynhendy Road	
Type	Residential	
Size	30 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 30 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 30 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS (incl SAC)	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H38	
Settlement	Llanelli	
Name	Former Glynderwen Factory	
Type	Residential	
Size	8 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 8 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS (incl SAC)	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H39	
Settlement	Llwynhendy, Llanelli	
Name	Land off Penllwunrhodyn Road West, Llwynhendy	
Type	Residential	
Size	11 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 11 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 11 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS (incl SAC)	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H40	
Settlement	Llanelli	
Name	Land off Penllwynrhodyn Road East	
Type	Residential	
Size	25 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 25 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 25 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS (incl SAC)	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H41	
Settlement	Llanelli	
Name	Ynys Las, Cefncaeau	
Type	Residential	
Size	45 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 45 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 45 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H42	
Settlement	Bynea	
Name	Bwlch Farm, Bynea	
Type	Residential	
Size	5 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 5 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 5 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H43	
Settlement	Llanelli	
Name	Glos Y Gerddi, Former Wyevale Garden Centre, Bynea	
Type	Residential	
Size	43 units (34 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 43 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 43 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Site complete	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H44	
Settlement	Bynea	
Name	Ffordd y Gamlas Ysbitty Road, Bynea	
Type	Residential	
Size	63 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<p><i>e.g. waterside development impacts on waders and wildfowl</i></p> <p>The close proximity of the EMS to the allocation may result in disturbance, however this is only likely during the construction phase. As this site is already completed and in a built up area there is not considered to be a likely significant effect as a result of disturbance.</p>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 63 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 63 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Site complete	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H45	
Settlement	Bynea	
Name	Genwen Road, Bynea	
Type	Residential	
Size	150 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 150 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 150 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H46	
Settlement	Llanelli	
Name	Land south of Llys Pendderi	
Type	Residential	
Size	200 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 200 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 200 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H47	
Settlement	Llanelli	
Name	Trallwm	
Type	Residential	
Size	65 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 65 units WWTW – Llanelli Sewage Treatment Works	Planning permission and site completed
Water quality (surface water)	Surface water drainage	Planning permission and site completed
Water resources (supply)	Supply for 65 residential units	Planning permission and site completed
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS Planning permission and site completed	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Planning permission and site completed	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H48	
Settlement	Llanelli	
Name	North of Clos Pendderi	
Type	Residential	
Size	137 units (37 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 137 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 137 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H49	
Settlement	Llanelli	
Name	Maes y Bryn, Penllwyngwyn Farm	
Type	Residential	
Size	46 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 46 units WWTW – Llanelli Sewage Treatment Works	Planning permission and site completed
Water quality (surface water)	Surface water drainage	Planning permission and site completed
Water resources (supply)	Supply for 46 residential units	Planning permission and site completed
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Planning permission and site completed	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H50	
Settlement	Llangennech	
Name	Box Farm, Llangennech	
Type	Residential	
Size	8 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: disturbance/fragmentation – otter CBE SAC Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Proposed site within 200m of the SAC, however screened from SAC by existing houses, therefore disturbance of otter or migratory fish is extremely unlikely and no significant effect is predicted.	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Proposed site within 200m of the SAC, however railway line is extremely likely to already create a barrier to otter movements towards or across this site, therefore no significant effect predicted.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 8 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H51	
Settlement	Llangennech	
Name	Aber Llŵchwr, Llangennech	
Type	Residential	
Size	56 units (26 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: within 200m of Carmarthen Bay and Estuaries SAC (disturbance) Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Proposed site within 200m of the SAC. However railway line is extremely likely to already create a barrier/disturb other movements towards or across this site, therefore no significant effect predicted.	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Proposed site within 200m of the SAC, however railway line is extremely likely to already create a barrier to other movements towards or across this site, therefore no significant effect predicted.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 56 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 56 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water LDP policies regarding protection of biodiversity.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H52	
Settlement	Llangennech	
Name	Golwg Yr Afon, Llangennech	
Type	Residential	
Size	50 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Site within 200m of Carmarthen Bay and Estuaries SAC (disturbance) Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Site within 200m of the SAC and 50m of Nant Mwrwg. Potential for otter disturbance during construction, due to wooded nature of the site.	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 50 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 50 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS (incl. SAC)	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water LDP policies on protection of biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include appropriate construction measures to prevent any disturbance to otter.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H53	
Settlement	Llangennech	
Name	Opposite Parc Morlais, Llangennech	
Type	Residential	
Size	30 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: within 200m of Carmarthen Bay and Estuaries SAC (disturbance) Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Proposed site within 200m of the SAC and within 100m of the River Morlais. Potential for otter disturbance during construction phase.	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 30 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 30 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water LDP policies on protection of biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include appropriate construction measures to prevent any disturbance to otter.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation	
Reference Number	GA2/H54
Settlement	Llangennech
Name	Maes y Dderwen, Llangennech
Type	Residential
Size	8 units (1 completed)
Any link to European sites	<i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i> Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)
Potential issues for European sites (only if link shown)	
Spatial	<i>Describe any specific issues</i>
Land take	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Llanelli Sewage Treatment Works
	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage
	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 8 residential units
	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H55	
Settlement	Furnace	
Name	Brynmefys, Furnace	
Type	Residential	
Size	70 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 70 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 70 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H56	
Settlement	Penceiliogi	
Name	Llys y Bryn, Penceiliogi	
Type	Residential	
Size	145 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 145 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 145 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/H57	
Settlement	Llwynhendy	
Name	Dylan, Trallwm	
Type	Residential	
Size	25 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 25 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 25 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/MU1	
Settlement	Llanelli	
Name	Old Castle Works, Llanelli	
Type	Mixed	
Size	5.49ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for mixed use WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for mixed use	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/MU2	
Settlement	Llanelli	
Name	Former DRAKA site, Copperworks Road, Llanelli	
Type	Mixed	
Size	6.68ha 150 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 150 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 150 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/MU3	
Settlement	Llanelli	
Name	Machynys Bund	
Type	Mixed	
Size (hectares and units)	11.64ha 0 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Adjacent to the Carmarthen Bay and Estuaries EMS Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Potential for disturbance of bird species in particular and potentially otter during the construction phase	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage site WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for site	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage LDP policies to protect biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include any construction measures to ameliorate any potential impacts as appropriate.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/MU4	
Settlement	Llanelli	
Name	Trostre Gateway, Llanelli	
Type	Mixed	
Size	3.73ha70 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 70 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 70 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/MU7	
Settlement	Llanelli	
Name	North Dock, Llanelli	
Type	Mixed	
Size	8.87ha 335 units (10 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Adjacent to the Carmarthen Bay and Estuaries EMS Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	No impact. Shoreline Management Plan is to hold the line on this area.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Potential for bird disturbance particularly during the construction phase.	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 335 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 335 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include construction measures to avoid bird disturbance as appropriate.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/MU8	
Settlement	Llanelli	
Name	Upper Park Street – East Gate, Llanelli	
Type	Mixed	
Size	2.3ha 0 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for site WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for site	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA2/MU9	
Settlement	Llanelli	
Name	Delta Lakes	
Type	Mixed	
Size	11.05ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for site WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for site	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policy proposed to require a split of surface and foul drainage LDP policies to protect, promote and reduce loss of biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H1	
Settlement	Ammanford	
Name	North End Garage, Bonllwyn	
Type	Residential	
Size	15 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 15 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 15 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H2	
Settlement	Ammanford	
Name	Residential Caravan Pak, Park Henry Lane	
Type	Residential	
Size	9 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 9 units WWTW – Penygroes and Blaenau STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 9 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation												
Reference Number	GA3/H3											
Settlement	Ammanford											
Name	Remainder of Myddynfych Farm (as allocation)											
Type	Residential											
Size	121 Units (82 completed)											
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>											
Potential issues for European sites (only if link shown)												
Spatial	<i>Describe any specific issues</i>											
Land take												
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>											
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>											
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>											
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>											
Non-spatial	<table border="1"> <thead> <tr> <th><i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i></th> <th><i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i></th> </tr> </thead> <tbody> <tr> <td>Water quality (foul drainage)</td> <td>Foul drainage for 121 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day</td> <td>Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works</td> </tr> <tr> <td>Water quality (surface water)</td> <td>CCC planning conditions with regard to surface water appear to be standard.</td> <td>The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.</td> </tr> <tr> <td>Water resources (supply)</td> <td>Supply for 121 residential units</td> <td>Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</td> </tr> </tbody> </table>	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	Water quality (foul drainage)	Foul drainage for 121 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works	Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.	Water resources (supply)	Supply for 121 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>											
Water quality (foul drainage)	Foul drainage for 121 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works										
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.										
Water resources (supply)	Supply for 121 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)										
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>											
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>											
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>											

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H4	
Settlement	Ammanford	
Name	N.Church Street	
Type	Residential	
Size	27 units (Planning completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 15 units WWTW – Garnwllt/Penygroes and Blaenau STW Will discharge on average 4000l/unit/day	Garnwllt/Penygroes and Blaenau Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 15 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H5	
Settlement	Ammanford	
Name	46-50 College Road	
Type	Residential	
Size	18 Units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 18 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 18 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H6	
Settlement	Ammanford	
Name	Former Police Station	
Type	Residential	
Size	12 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 12 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 12 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H7	
Settlement	Ammanford	
Name	Viji Garage, High Street	
Type	Residential	
Size	20 Units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 20 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 20 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H8	
Settlement	Ammanford	
Name	Lon Ger y Coed/Wernoleu Road (REMAINDER OF ALLOCATION)	
Type	Residential	
Size	14 Units (1 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 14 units WWTW – Garnwllt/Penygroes and Blaenau STW Will discharge on average 4000l/unit/day	Garnwllt/Penygroes and Blaenau Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 14 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H9	
Settlement	Ammanford	
Name	Former Betws Colliery	
Type	Residential	
Size	226 Units (146 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 226 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 226 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H10	
Settlement	Ammanford	
Name	Land at Colonel Road	
Type	Residential	
Size	6 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 6 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 6 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H11	
Settlement	Ammanford	
Name	Woodlands Park	
Type	Residential	
Size	8 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Garnswllt STW Will discharge on average 4000l/unit/day	Garnswllt Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 8 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H12	
Settlement	Ammanford	
Name	Land at Rear of 16-20, 24-30 Betws Road	
Type	Residential	
Size	8 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 8 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H13	
Settlement	Ammanford	
Name	Former Petrol Station, Wind Street	
Type	Residential	
Size	11 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 11 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 11 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H14	
Settlement	Ammanford	
Name	Land opposite Plough and Harrow, Betws	
Type	Residential	
Size	9 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units WWTW – Garnswllt STW Will discharge on average 4000l/unit/day	Garnswllt Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 9 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H15	
Settlement	Ammanford	
Name	Land at Waungron Road and Colonel Road	
Type	Residential	
Size (hectares and units)	6 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 6 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 6 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation	
Reference Number	GA3/H16
Settlement	Ammanford
Name	Land at Gwynfryn Fawr
Type	Residential
Size	106 Units
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>
Potential issues for European sites (only if link shown)	
Spatial	<i>Describe any specific issues</i>
Land take	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>
Non-spatial	<p><i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i></p> <p><i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i></p>
Water quality (foul drainage)	<p>Foul drainage for 106 units WWTW – Garnwllt/Penygroes and Blaenau STW Will discharge on average 4000l/unit/day</p> <p>Garnwllt/Penygroes and Blaenau Sewage Treatment Works</p>
Water quality (surface water)	<p>CCC planning conditions with regard to surface water appear to be standard.</p> <p>The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.</p>
Water resources (supply)	<p>Supply for 106 residential units</p> <p>Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation												
Reference Number	GA3/H17											
Settlement	Ammanford											
Name	Tirychen Farm											
Type	Residential											
Size	250 Units											
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>											
Potential issues for European sites (only if link shown)												
Spatial	<i>Describe any specific issues</i>											
Land take												
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>											
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>											
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>											
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>											
Non-spatial	<table border="1"> <thead> <tr> <th><i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i></th> <th><i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i></th> </tr> </thead> <tbody> <tr> <td>Water quality (foul drainage)</td> <td>Foul drainage for 250 units WWTW – Garnwllt/Penygroes and Blaenau STW Will discharge on average 4000l/unit/day</td> <td>Garnwllt/Penygroes and Blaenau Sewage Treatment Works</td> </tr> <tr> <td>Water quality (surface water)</td> <td>CCC planning conditions with regard to surface water appear to be standard.</td> <td>The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.</td> </tr> <tr> <td>Water resources (supply)</td> <td>Supply for 250 residential units</td> <td>Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</td> </tr> </tbody> </table>	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	Water quality (foul drainage)	Foul drainage for 250 units WWTW – Garnwllt/Penygroes and Blaenau STW Will discharge on average 4000l/unit/day	Garnwllt/Penygroes and Blaenau Sewage Treatment Works	Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.	Water resources (supply)	Supply for 250 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>											
Water quality (foul drainage)	Foul drainage for 250 units WWTW – Garnwllt/Penygroes and Blaenau STW Will discharge on average 4000l/unit/day	Garnwllt/Penygroes and Blaenau Sewage Treatment Works										
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.										
Water resources (supply)	Supply for 250 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)										
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>											
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>											
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>											

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H18	
Settlement	Ammanford	
Name	Land at Maes y rhaf E/21225 20090603	
Type	Residential	
Size	19 units (8 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as could be an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for unknown number of units WWTW – Garnwllt/Penygroes and Blaenau Sewage Treatment Works Will discharge on average 4000l/unit/day	Garnwllt/Penygroes and Blaenau Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 19 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H19	
Settlement	Ammanford	
Name	Land Adj Parc Fferws	
Type	Residential	
Size	27 Units (19 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site is not considered to be in an area of permeable landscape	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 27 units WWTW – Penygroes and Blaenau/Garnswllt STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau/Garnswllt STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 27 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H20	
Settlement	Tycroes	
Name	Hafod Road	
Type	Residential	
Size	24 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary) Impact potential as partly n an area of permeable landscape.</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	<p>Foul drainage for 24 units WWTW – Garnswllt Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6th Ed)</p>	Garnswllt Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 24 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i> Yes - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals. Detailed design to allow permeability within proposals</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H21	
Settlement	Tycroes	
Name	D. Coaches Depot, Tycroes Road	
Type	Residential	
Size	7 Units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site is not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 7 units WWTW – Garnswllt Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Garnswllt Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 7 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>No this has completed with planning in accordance with the UDP policies..</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H22	
Settlement	Tycroes	
Name	Land at Fforest Fach	
Type	Residential	
Size	20 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site is not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 20 units WWTW – Garnswllt Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Garnswllt Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 20 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H23	
Settlement	Tycroes	
Name	Land at Heol Ddu	
Type	Residential	
Size	127 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	<p>Foul drainage for 127 units WWTW – Cross Hands Sewage Treatment Works? Will discharge on average 4000l/unit/day (Sewers for Adoption 6th Ed)</p>	Cross Hands Sewage Treatment Works – Capacity unknown
Water quality (surface water)	<p>Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru</p>	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	<p>Supply for 127 residential units Will require on average 4000l/unit/day.</p>	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i> Yes?? Carmarthen Bay and Estuaries EMS.</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H24	
Settlement	Tycroes	
Name	Land adj. Pontardulais Road	
Type	Residential	
Size	5 Units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	<p>Foul drainage for 5 units WWTW – Cross Hands Sewage Treatment Works? Will discharge on average 4000l/unit/day (Sewers for Adoption 6th Ed)</p>	Cross Hands Sewage Treatment Works – Capacity unknown
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 5 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i> No Caeau Mynydd Mawr SAC Yes?? Carmarthen Bay and Estuaries EMS.</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i> No this has completed with planning in accordance with the UDP policies.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H25	
Settlement	Capel Hendre	
Name	Delfryn Estate	
Type	Residential	
Size	15 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site is not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 15 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 15 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H26	
Settlement	Capel Hendre	
Name	Land adjoining Llys Newydd Nursing Home	
Type	Residential	
Size	25 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site is not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 25 units WWTW – Cross Hands Sewage Treatment Works? Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works – Capacity unknown
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 25 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H27	
Settlement	Saron	
Name	Land at adjacent to Nantyci Road	
Type	Residential	
Size	27 units (12 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 27 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 27 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H28	
Settlement	Saron	
Name	Land to the rear of 152 Saron Road	
Type	Residential	
Size	17 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 17 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 17 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation	
Reference Number	GA3/H29
Settlement	Llandybie
Name	Land off Llys Y Nant, Llandybie
Type	Residential
Size	9 Units
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>
Potential issues for European sites (only if link shown)	
Spatial	<i>Describe any specific issues</i>
Land take	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units WWTW – Penygroes and Blaenau STW Will discharge on average 4000l/unit/day
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.
Water resources (supply)	Supply for 9 residential units
	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H30	
Settlement	Llandybie	
Name	Kings Road	
Type	Residential	
Size	22 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 22 units WWTW – Penygroes and Blaenau STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 22 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H31	
Settlement	Llandybie	
Name	Adjacent Primary School	
Type	Residential	
Size	32 Units (18 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 32 units WWTW – Penygroes and Blaenau STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 32 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H32	
Settlement	Llandybie	
Name	Land adjacent to Maespiode, Llandybie	
Type	Residential	
Size	42 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 42 units WWTW – Penygroes and Blaenau STW Will discharge on average 4000l/unit/day	Penygroes and Blaenau STW Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 42 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H33	
Settlement	Blaenau/Caerbryn	
Name	Land at adjacent to Penygroes Road	
Type	Residential	
Size	17 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Twfi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 17 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 17 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H34	
Settlement	Penygroes	
Name	Adjacent to Pantyblodau	
Type	Residential	
Size	24 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 24 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Application supported by Surface Water Report which indicates the surface water will be collected, recycled and discharged to a linear soakaway
Water resources (supply)	Supply for 24 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP) Application supported by Surface Water Report which indicated that water meters would be installed.
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> No this has completed with planning in accordance with the UDP policies.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H35	
Settlement	Penygroes	
Name	Adjacent to Pantyblodau	
Type	Residential	
Size	90 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 90 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Application supported by Surface Water Report which indicates the surface water will be collected, recycled and discharged to a linear soakaway
Water resources (supply)	Supply for 90 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP) Application supported by Surface Water Report which indicated that water meters would be installed.
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required. DEPENDENT ON FOUL SEWER	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H36	
Settlement	Penygroes	
Name	Adjacent Clos y Cwm	
Type	Residential	
Size	12 units (8 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 12 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard. Dwr Cymru conditions imposed include requirement for separate surface and foul drainage and no surface water or land drainage shall be allowed to enter the sewerage system.	Planning permission granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru
Water resources (supply)	Supply for 12 residential units Will require on average 4000l/unit/day	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H37	
Settlement	Penygroes	
Name	Clos y Cwm	
Type	Residential	
Size	17 units (4 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 17 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard. Dwr Cymru conditions imposed include requirement for separate surface and foul drainage and no surface water or land drainage shall be allowed to enter the sewerage system.	Planning permission granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru
Water resources (supply)	Supply for 17 residential units Will require on average 4000l/unit/day	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H38	
Settlement	Penygroes	
Name	Land at Waterloo Road (remainder of UDP allocation)	
Type	Residential	
Size	59 units (47 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact potential, as land take recorded as suitable and good condition butterfly habitat. ** LSE completed for the application considered that it may have a significant effect in combination with other applications in the area (W/19288 refused as W/22226 Dec 2009 & S/19223 53 Carmarthen Road part approved S/06554).	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 59 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard. Dwr Cymru conditions imposed include requirement for separate surface and foul drainage and no surface water or land drainage shall be allowed to enter the sewerage system.	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru
Water resources (supply)	Supply for 59 residential units Will require on average 4000l/unit/day	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes Caeau Mynydd Mawr SAC – In-combination Yes. Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. Detailed design and mitigation to avoid/ameliorate impact on marsh fritillary habitat loss – PLANNING PERMISSION WITHDRAWN	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H39	
Settlement	Penygroes	
Name	Land at junction of Black Lion Road and Gorsddu Road	
Type	Residential	
Size	26 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 26 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 26 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation	
Reference Number	GA3/H40
Settlement	Castell y Rhingyll
Name	Land adjacent to the A476 (The Gate)
Type	Residential
Size	9 units
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>
Potential issues for European sites (only if link shown)	
Spatial	<i>Describe any specific issues</i>
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site is not considered to be in an area of permeable landscape.
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>
Water quality (foul drainage)	<p>Foul drainage for 9 units WWTW – Crosshands/Penygroes and Blaenau Sewage Treatment Works? Will discharge on average 4000l/unit/day (Sewers for Adoption 6th Ed)</p> <p>Crosshands/Penygroes and Blaenau Sewage Treatment Works Sewage Treatment Works</p> <p>NOTE DCWW letter in E/19493 with respect of sewage system overload therefore building to be completed after 01 Apr 2009. Improvements complete?</p>
Water quality (surface water)	<p>Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru</p> <p>Sustainable drainage design likely to be applied in detail design.</p>
Water resources (supply)	<p>Supply for 9 residential units Will require on average 4000l/unit/day.</p> <p>Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC No - River Tywi Yes - Carmarthen Bay and Estuaries EMS.</p>
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required.</p>

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H41	
Settlement	Gorslas	
Name	Grove Hill Park	
Type	Residential	
Size	13 units (10 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 13 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	Planning permission granted – standard conditions included re surface water and standard advice from EAW.
Water resources (supply)	Supply for 31 residential units Will require on average 4000l/unit/day	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC No – River Tywi Yes - Carmarthen Bay and Estuaries EMS.</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level – PLANNING PERMISSION GRANTED – NO AA completed</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H42	
Settlement	Gorslas	
Name	Land to rear of Maes y Grug	
Type	Residential	
Size	7 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 7 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard. Dwr Cymru conditions imposed include requirement for separate surface and foul drainage and no surface water or land drainage shall be allowed to enter the sewerage system.	Planning permission granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru
Water resources (supply)	Supply for 7 residential units Will require on average 4000l/unit/day	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC No – River Tywi SAC Yes - Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level – PLANNING PERMISSION GRANTED – NO AA	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H43	
Settlement	Gorslas	
Name	Land off Ffordd Werdd	
Type	Residential	
Size	10 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 10 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	Planning permission granted – standard conditions included re surface water and standard advice from EAW.
Water resources (supply)	Supply for 10 residential units Will require on average 4000l/unit/day	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level – PLANNING PERMISSION GRANTED – NO AA	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H44	
Settlement	Gorslas	
Name	Part of Breaker's Yard	
Type	Residential	
Size	45 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 45 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 45 residential units Will require on average 4000l/unit/day	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals. Potential for detailed design of site top allow permeability	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H45	
Settlement	Cross Hands	
Name	Opposite Ty Newydd Terrace	
Type	Residential	
Size	56 units (46 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	No impact, as land take not suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact extremely unlikely as infill development within an area already considered not permeable to marsh fritillary.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 56 units WWTW – Cross Hands Sewage Treatment Works	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission granted with a requirement for a sustainable drainage system (as per TAN15)	The detail design had to be submitted for approval by CCC prior to construction.
Water resources (supply)	Supply for 56 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC No - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i>	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H46	
Settlement	Cross Hands	
Name	Adjacent to Maes yr haf	
Type	Residential	
Size	10 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	No impact, as land take not suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact extremely unlikely as infill development within an area already considered not permeable to marsh fritillary.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 10 units WWTW – Cross Hands Sewage Treatment Works	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning App states surface water to be disposed off via existing watercourse (Afon Gwilli)	The detail design will be needed to show sustainable surface water drainage solution. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 10 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC No - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i>	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H47	
Settlement	Cross Hands	
Name	Adjacent to Pantgwyn	
Type	Residential	
Size	65 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact likely as land take appears to include suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact potential as infilling an areas that could be permeable.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 65 units WWTW – Cross Hands Sewage Treatment Works	Cross Hands Sewage Treatment Works
Water quality (surface water)	LDP policy: split foul and surface water.	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 65 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>Yes - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP policy proposed to require a split of surface and foul drainage LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes – as the detailed design will need to include separate surface water drainage system.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H48	
Settlement	Cefneithin	
Name	Land at Heol y Parc (incorporates a large part of CS1201)	
Type	Residential	
Size	9 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as could be an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 9 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Maybe - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. Yes - River Tywi	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H49	
Settlement	Cefneithin	
Name	Treventy Road East	
Type	Residential	
Size	41 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact likely, as land take includes suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as could be an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 41 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 41 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. Yes - River Tywi	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H50	
Settlement	Cefneithin	
Name	Pt Heol Rhosybonwen	
Type	Residential	
Size	14 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Inside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact likely as land take may include good condition habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 14 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 14 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>Yes - Caeau Mynydd Mawr SAC No - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H51	
Settlement	Drefach (Tumble)	
Name	Land at Bron-yr-Ynn	
Type	Residential	
Size	36 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 36 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 36 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC No - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H52	
Settlement	Drefach (Tumble)	
Name	Land off Heol Caegwyn	
Type	Residential	
Size	8 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 8 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC No - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H53	
Settlement	Drefach (Tumble)	
Name	Nantydderwen	
Type	Residential	
Size	33 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for 33 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 33 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H54	
Settlement	Tumble	
Name	Rhydycerig Estate, Derwen Road	
Type	Residential	
Size	10 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Inside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely, as not within an area of landscape permeability	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 10 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 10 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H55	
Settlement	Tumble	
Name	Land at rear of 56 Gwendreath Road	
Type	Residential	
Size	8 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Inside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely, as not within an area of landscape permeability	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 8 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H56	
Settlement	Tumble	
Name	Land at Factory Site between 22 & 28 Bethesda Road	
Type	Residential	
Size	30 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Inside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely, as not within an area of landscape permeability	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 30 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 30 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H57	
Settlement	Tumble	
Name	Ravelston	
Type	Residential	
Size	8 units (3 complete)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Inside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely, as not within an area of landscape permeability	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 8 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 8 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H58	
Settlement	Tumble	
Name	Adj Llety Mawr, Tumble	
Type	Residential	
Size	6 units (Complete)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Inside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact likely as land take appears to include areas of suitable habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as infilling potential flyway area	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 6 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 6 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>Yes - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H59	
Settlement	Cross Hands	
Name	North of Primary School, Carmarthen Road	
Type	Residential	
Size	105 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Inside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact likely as land take appears to include areas of suitable habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as infilling potential flyway area	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 105 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 105 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation and some land take could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/H60	
Settlement	Cross Hands	
Name	Land to the rear of Gwernllwyn, Cross Hands Road	
Type	Residential	
Size	30 Units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Inside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	No impact, as land take not suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact extremely unlikely as infill development within an area already considered not permeable to marsh fritillary.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 30 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 30 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation and some land take could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/MU1	
Settlement	Cross Hands	
Name	West Tip	
Type	Mixed	
Size	21.01ha/220 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Potential impact, as land take suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Potential impact as within an area of permeable landscape used by marsh fritillary butterfly	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 220 units WWTW – Cross Hands Sewage Treatment Works	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning App states surface water to be disposed off via existing watercourse, Sustainable drainage system, soakaway, pond/lake.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for 220 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>Yes - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/MU2	
Settlement	Penygroes	
Name	Emlyn Brickwork Site	
Type	Mixed	
Size	20.64ha/250 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact unlikely as site not considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 250 units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cross Hands Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for 250 residential units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/E1	
Settlement	Crosshands	
Name	Crosshands Business Park	
Type	Strategic Site	
Size	0.79ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as could be an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for unknown number of units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for employment units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Maybe - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/E2	
Settlement	Cross Hands	
Name	Meadows Road	
Type	Strategic Site	
Size	1.16ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for unknown number of units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for employment units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi</p>	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/E3	
Settlement	Cross Hands	
Name	Parc Menter	
Type	Employment	
Size	1.04ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for unknown number of units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for employment units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Maybe - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to safeguard the Caeau Mynydd Mawr SAC, enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/E7	
Settlement	Cross Hands	
Name	Crosshands East	
Type	Strategic Site	
Size	9.22ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as could be an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for unknown number of units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for employment units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Maybe - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/E8	
Settlement	Cross Hands	
Name	Crosshands West	
Type	Employment	
Size	8.91ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take appears not to be suitable butterfly habitat.	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as could be an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for unknown number of units WWTW – Cross Hands Sewage Treatment Works Will discharge on average 4000l/unit/day	Cross Hands Sewage Treatment Works
Water quality (surface water)	CCC planning conditions with regard to surface water appear to be standard.	The detail design will be needed to show sustainable surface water drainage solutions. Planning conditions may be used to prevent pollution in receiving watercourse.
Water resources (supply)	Supply for employment units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Maybe - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No - River Tywi	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level. For example fragmentation could be avoided at the detail design phase.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/E10	
Settlement	Capel Hendre	
Name	Capel Hendre Industrial Estate	
Type	Employment	
Size	4.05ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i> Impact possible as site may be considered to be in an area of permeable landscape.	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for employment units WWTW – Cwmgwili Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cwmgwili Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for employment units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Possible - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required. For example detail design could resolve any permeability impacts.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/E11	
Settlement	Capel Hendre	
Name	Parc Hendre	
Type	Employment	
Size	11.73ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Spatial link: Within the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi SAC (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take	Impact unlikely, as land take recorded as unsuitable butterfly habitat	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	Foul drainage for employment units WWTW – Cwmgwili Will discharge on average 4000l/unit/day (Sewers for Adoption 6 th Ed)	Cwmgwili Sewage Treatment Works
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for employment units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<p><i>Yes/no plus name of site (s)</i></p> <p>No - Caeau Mynydd Mawr SAC Yes - Carmarthen Bay and Estuaries EMS. No – River Tywi SAC</p>	
Can any mitigation measures be introduced through the LDP	<p><i>Yes/no plus short description of measures as appropriate</i></p> <p>Installation of water meters in new residential development LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.</p>	
Is it appropriate to defer the appropriate assessment to the project level?	<p><i>Yes/no plus reasons why</i></p> <p>Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required. For example detail design could resolve any permeability impacts.</p>	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	GA3/E12	
Settlement	Ammanford / Cross Hands	
Name	Tycroes	
Type	Employment	
Size	0.34ha	
Any link to European sites	<p>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</p> <p>Spatial link: Outside the Caeau Mynydd Mawr SAC metapopulation area (mobile species Marsh Fritillary Butterfly)</p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply), however water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>	
Water quality (foul drainage)	<p>Foul drainage for employment units WWTW – Cross Hands Sewage Treatment Works? Will discharge on average 4000l/unit/day (Sewers for Adoption 6th Ed)</p>	Cross Hands Sewage Treatment Works – Capacity unknown
Water quality (surface water)	Planning permission if granted – standard conditions included re surface water and standard advice from EAW and Dwr Cymru	Sustainable drainage design likely to be applied in detail design.
Water resources (supply)	Supply for employment units Will require on average 4000l/unit/day.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes?? Carmarthen Bay and Estuaries EMS.	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP has policies to enhance biodiversity and protect water quantity and supply within proposals.	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes this is appropriate as mitigation for potential impacts need to be resolved at the project specific level if required.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/E1	
Settlement	Burry Port	
Name	Dyfatty	
Type	Mixed & Employment	
Size	3.28ha	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for site Llanelli STW.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for site	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H1	
Settlement	Pembrey	
Name	Land Opposite Dan Y, Pembrey	
Type	Residential	
Size	66 units (36 completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 66 units WWTW – Llanelli or Pembrey Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 66 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated. Site partly complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H2	
Settlement	Pembrey	
Name	Cwrt Farm, Pembrey	
Type	Residential	
Size	75 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 85 units WWTW – Llanelli or Pembrey Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 85 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H3	
Settlement	Burry Port	
Name	Oaklands Close Burry Port	
Type	Residential	
Size	8 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for further 8 units WWTW: Llanelli STW. Permission for 3 already granted.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for further 8 residential units. Permission for 3 already granted.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated. Site with planning consent part given assume no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H4	
Settlement	Burry Port	
Name	Bay View, Graig	
Type	Residential	
Size	9 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 9 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H5	
Settlement	Burry Port	
Name	20 Gwscwm Road	
Type	Residential	
Size	9 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 9 units WWTW – Llanelli Sewage Treatment Works?	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 9 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Site completed	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H6	
Settlement	Burry Port	
Name	St Mary's Church Parish Hall	
Type	Residential	
Size	13 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 13 units WWTW – Llanelli Sewage Treatment Works?	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 13 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Site complete	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H7	
Settlement	Burry Port	
Name	Land at Dolau Fan, Burry Port	
Type	Residential	
Size	7 units (6 complete)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 7 units WWTW – Llanelli Sewage Treatment Works	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 7 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Planning consent already given for these units	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H8	
Settlement	Burry Port	
Name	Chandlers Yard, Burry Port	
Type	Residential	
Size	40 units (Completed)	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 40 units WWTW: Llanelli STW.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 40 units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> Site completed	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Site complete therefore assume planning consent given as no effect on CBEEMS.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H9	
Settlement	Burry Port	
Name	Gwdig Farm, Burry Port	
Type	Residential	
Size	86 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 86 units WWTW: Llanelli STW.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 86 residential units	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H10	
Settlement	Pembrey	
Name	Lando Road, Pembrey	
Type	Residential	
Size	20 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 20 units WWTW: Llanelli STW.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 20 residential units.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H11	
Settlement	Pembrey	
Name	Garreglwyd, Pembrey	
Type	Residential	
Size	10 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 10 units WWTW: Llanelli STW.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 10 residential units.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H12	
Settlement	Burry Port	
Name	Dyfatty North	
Type	Residential	
Size	40 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 40 units WWTW: Llanelli STW.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 40 residential units.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water LDP policies on protection of biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include appropriate construction measures to prevent any disturbance to birds.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation	
Reference Number	T2/1/H13
Settlement	Burry Port
Name	Dyfatty South
Type	Residential
Size	20 units
Any link to European sites	<i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i> Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)
Potential issues for European sites (only if link shown)	
Spatial	<i>Describe any specific issues</i>
Land take	
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>
Water quality (foul drainage)	Foul drainage for 20 units WWTW: Llanelli STW.
Water quality (surface water)	Surface water drainage
Water resources (supply)	Supply for 20 residential units.
	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
	Project specific design to allow surface water to be collected and discharged separately.
	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water LDP policies on protection of biodiversity
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include appropriate construction measures to prevent any disturbance to birds.

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/H14	
Settlement	Burry Port	
Name	Heol Waun Wen	
Type	Residential	
Size	10 units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and where the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i> Potential disturbance to bird species. Only really likely during construction phase as in port/marina area which is already a potential disturbance which the birds are accustomed to.	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage for 10 units WWTW: Llanelli STW.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for 10 residential units.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> An LDP policy is proposed with regard to splitting foul and surface water LDP policies on protection of biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> Yes – as the detailed design will need to include appropriate construction measures to prevent any disturbance to birds.	

Proforma to test likely significant effects of all candidate site allocations

Candidate Site Allocation		
Reference Number	T2/1/MU1	
Settlement	Burry Port	
Name	Burry Port Harbour	
Type	Residential	
Size (hectares and units)	2.9ha N/A units	
Any link to European sites	<p><i>This could be a spatial link i.e. an allocation is close to a N2K site or a non-spatial link i.e. indirect impacts where impact is not directly linked to the location of the site allocation e.g. on water quality and resource which could occur depending on which WWTW is used and were the water supply is sourced. State "spatial" or "Non-spatial" and the name of the European site(s) for each.</i></p> <p>Non-spatial link presumed via WWTW and water supply. Carmarthen Bay and Estuaries EMS (WWTW discharges). River Tywi (water supply)</p>	
Potential issues for European sites (only if link shown)		
Spatial	<i>Describe any specific issues</i>	
Land take		
Disturbance	<i>e.g. waterside development impacts on waders and wildfowl</i>	
Air quality	<i>e.g. waste disposal/landfill site or industrial development</i>	
Fragmentation	<i>e.g. infill development where mobile species are a SAC feature (otter and marsh fritillary)</i>	
Non Native/Invasive Species	<i>e.g. development on brownfield sites where invasive species could be spread, most likely adjacent to rivers</i>	
Non-spatial	<i>Describe requirements i.e. likely receiving WWTW, surface water discharge quantities and SUDS, water supply resource proposed</i>	<i>Describe availability i.e. WWTW capacity and options, SUDS capability, resource availability</i>
Water quality (foul drainage)	Foul drainage site WWTW: Llanelli STW.	WWTW capacity considered by DCWW in AMP cycles using the same population growth predictions as the LDP, therefore capacity assumed to be available.
Water quality (surface water)	Surface water drainage	Project specific design to allow surface water to be collected and discharged separately.
Water resources (supply)	Supply for site.	Water generally considered available in Carmarthenshire (ref EA CAMS and DCWW dWRMP)
Is an impact on N2K site likely?	<i>Yes/no plus name of site (s)</i> Yes. Carmarthen Bay and Estuaries EMS	
Can any mitigation measures be introduced through the LDP	<i>Yes/no plus short description of measures as appropriate</i> LDP policies on protection of biodiversity	
Is it appropriate to defer the appropriate assessment to the project level?	<i>Yes/no plus reasons why</i> If the site progress's through planning in accordance with the policies in the Deposit draft LDP then no significant effect is anticipated.	

Appendix F Site Allocation (Non Growth Areas) Assessment Table



Assessment of Site Allocation (Restricted to those not included within the detailed Growth Area Assessments)

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
SC1/H1	Drefach-Felindre	Residential	40								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC1/H2	Waungilwen	Residential	30								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC1/H3	Waungilwen	Residential	5								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC1/H4	Waungilwen	Residential	6								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC1/H5	Waungilwen	Residential	7								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC2/H1	Llangeler	Residential	6								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC2/H2	Pentrecwrt	Residential	14								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC2/H3	Saron, Llandysul	Residential	8								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC2/H4	Saron, Llandysul	Residential	35								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC3/H1	Llanboidy	Residential	20								X	Tywi	X	CBEEMS	Foul drains into R. Taf
SC4/H1	Glandy Cross	Residential	10								X	Tywi	X	Pembrokeshire Marine	Foul drains into Eastern Cleddau outputs into Pembrokeshire Marine
SC4/H2	Glandy Cross	Residential	6								X	Tywi	X	Pembrokeshire Marine	Foul drains into Eastern Cleddau outputs into Pembrokeshire Marine
SC4/H3	Efailwen	Residential	9								X	Tywi	X	Pembrokeshire Marine	Foul drains into Eastern Cleddau outputs into Pembrokeshire Marine
SC7/H1	Capel Iwan	Residential	7								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC7/H2	Capel Iwan	Residential	13								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC8/H1	Trelech	Residential	6								X	Tywi	X	CBEEMS	Foul drains into R. Taf
SC8/H2	Trelech	Residential	5								X	Tywi	X	CBEEMS	Foul drains into R. Taf
SC9/H1	Cynwyl Elfed	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC9/H2	Cynwyl Elfed	Residential	15								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC9/H3	Cynwyl Elfed	Residential	6								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC11/H1	Llangynin	Residential	10								X	Tywi	X	CBEEMS	Foul drains into R. Taf
SC11/H2	Meidrim	Residential	12								X	Tywi	X	CBEEMS	Foul drains into R. Taf
SC11/H3	Meidrim	Residential	10								X	Tywi	X	CBEEMS	Foul drains into R. Taf
SC13/H1	Pendine	Residential	5								X	Tywi	X	CBEEMS	Foul drains into Bay

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
SC13/H2	Pendine	Residential	5								X	Tywi	X	CBEEMS	Foul drains into Bay
SC13/H3	Llanmiloe	Residential	40								X	Tywi	X	CBEEMS	Foul drains into Bay
SC14/H1	Red Roses	Residential	8								X	Tywi	X	CBEEMS	Foul drains into Bay
SC15/H1	Bancyfelin	Residential	23								X	Tywi	X	CBEEMS	Foul drains into R.Cywyn, then into R. Taf
SC15/H2	Llangynog	Residential	5									Tywi	X	CBEEMS	Foul drains into Bay
SC16/H1	Llansteffan	Residential	10								X	Tywi	X	CBEEMS	Foul drains into Bay
SC17/H1	Mynyddygarreg	Residential	74								X	Tywi	X	CBEEMS	Foul drains into Bay
SC17/H2	Mynyddygarreg	Residential	11								X	Tywi	X	CBEEMS	Foul drains into Bay
SC17/H3	Mynyddygarreg	Residential	28								X	Tywi	X	CBEEMS	Foul drains into Bay
SC17/H4	Mynyddygarreg	Residential	30								X	Tywi	X	CBEEMS	Foul drains into Bay
SC18/H1	Bronwydd	Residential	15								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC18/H2	Cwmfrwd	Residential	10								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC18/H3	Cwmfrwd	Residential	30								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC18/H4	Cwmfrwd	Residential	23								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC18/H5	Llangain	Residential	25								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC18/H6	Peniel	Residential	10								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC18/H7	Peniel	Residential	10								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC19/H1	Alltwalis	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC19/H2	Llanpumsaint	Residential	9								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC19/H3	Llanpumsaint	Residential	20								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC19/H4	Rhydargaeau	Residential	11								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC19/H5	Rhydargaeau	Residential	18								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC20/H1	Llanfihangel-ar-arth	Residential	8								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC20/H2	New Inn	Residential	8								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC20/H3	New Inn	Residential	12								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC20/H4	Pencader	Residential	17			X				Teifi	X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC20/H5	Pencader	Residential	37								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC20/H6	Pencader	Residential	9								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC21/H1	Pontwelly	Residential	17								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
SC21/H2	Pontwelly	Residential	19								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC22/H1	Llanllwni	Residential	10								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC22/H2	Llanllwni	Residential	8								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC22/H3	Llanllwni	Residential	11								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC23/H1	Cwmann	Residential	7								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC23/H2	Cwmann	Residential	12								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC23/H3	Cwmann	Residential	29								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC23/H4	Cwmann	Residential	7								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC23/H5	Cwmann	Residential	18								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
SC24/H1	Caeo	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Cothi, then into R. Tywi
SC24/H2	Ffarmers	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Twrch, then into R. Cothi, then into R. Tywi
SC25/H1	Llansawel	Residential	5								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC25/H2	Rhydcymerau	Residential	6								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC25/H3	Talley	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC25/H4	Talley	Residential	9								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC25/H5	Talley	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC26/H1	Llandwra	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC28/H1	Cynghordy	Residential	22								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC30/H1	Cwm-ifer	Residential	25								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC30/H2	Penybanc (Llandeilo)	Residential	5								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC30/H3	Salem	Residential	5								X	Tywi	X	CBEEMS	Foul drains into R. Myddyfi, then into R. Tywi
SC31/H1	Cwrt Henri	Residential	16								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC31/H2	Llanarthne	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC31/H3	Llanarthne	Residential	10								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC32/H1	Capel Dewi	Residential	8								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC32/H2	Nantgaredig	Residential	30								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC32/H3	Pontargothi	Residential	15								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
SC33/H1	Llanddarog	Residential	16								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC33/H2	Llanddarog	Residential	6								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC33/H3	Porthyrhyd	Residential	27								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC33/H4	Porthyrhyd	Residential	9								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/E1	Cilyrychen	Employment	0	1.5ha							X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/E2	Cilyrychen	Employment	0	1.7ha							X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/H1	Carmel	Residential	10								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/H2	Cwmgwili	Residential	15								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/H3	Cwmgwili	Residential	10								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/H4	Foelgastell	Residential	55								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/H5	Llannon	Residential	38								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/H6	Llannon	Residential	6								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC34/H7	Maesybont	Residential	5								X	Tywi	X	CBEEMS	Foul drains into Estuary
SC35/H1	Ystradowen	Residential	9								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC35/H2	Ystradowen	Residential	11								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC35/H3	Ystradowen	Residential	5								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC35/H4	Ystradowen	Residential	9								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC36/H1	Llanedi	Residential	7								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC37/H1	Five Roads	Residential	34								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC37/H2	Five Roads	Residential	14								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC37/H3	Five Roads	Residential	25								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC39/H1	Llangyndeyrn	Residential	12								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC40/H1	Carway	Residential	8								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC40/H2	Carway	Residential	5								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
SC40/H3	Carway	Residential	480								X	Tywi	X	CBEEMS	Foul drains into watercourses into Estuary
SC41/H1	Llanfynydd	Residential	14								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
SC42/H1	Brechfa	Residential	14								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/2/E1	Rhosmaen	Employment	0	2.33ha							X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/2/H1	Llandeilo	Residential	215								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/2/H2	Rhosmaen	Residential	6								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/2/H3	Rhosmaen	Residential	6								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/2/H4	Llandeilo	Residential	5								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/2/H5	Llandeilo	Residential	25								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/2/H6	Llandeilo	Residential	6								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/3/H1	Llandovery	Residential	60								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/3/H2	Llandovery	Residential	6								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/3/MU1	Llandovery	Mixed Use	45	2.6ha							X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T2/4/E1	Newcastle Emlyn	Employment	0	1.0ha							X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T2/4/H1	Newcastle Emlyn	Residential	17								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T2/4/H2	Newcastle Emlyn	Residential	12			X				Teifi	X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T2/4/H3	Newcastle Emlyn	Residential	14								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T2/4/H4	Newcastle Emlyn	Residential	34								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T2/4/H5	Newcastle Emlyn	Residential	12								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T2/5/E1	St Clears	Employment	0	0.33ha							X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/E2	St Clears	Employment	0	1.23ha							X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/H1	St Clears	Residential	48								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/H2	St Clears	Residential	5								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/H3	St Clears	Residential	60								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/H4	St Clears	Residential	50								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/H5	St Clears	Residential	40								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/H6	St Clears	Residential	8								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/H7	St Clears	Residential	20								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/5/H8	St Clears	Residential	48								X	Tywi	X	CBEEMS	Foul drains into R. Taf

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
T2/5/MU1	St Clears	Mixed Use	0	0.36ha							X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/E1	Whitland	Employment	0	0.27ha							X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/E2	Whitland	Employment	0	1.07ha							X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/E3	Whitland	Employment	0	1.7ha							X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/H1	Whitland	Residential	32								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/H2	Whitland	Residential	24								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/H3	Whitland	Residential	72								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/H4	Whitland	Residential	64								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/H5	Whitland	Residential	7								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T2/6/H6	Whitland	Residential	6								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T3/1/H1	Laugharne	Residential	40								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T3/1/H2	Laugharne	Residential	42								X	Tywi	X	CBEEMS	Foul drains into R. Taf
T3/2/H1	Ferryside	Residential	20								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T3/2/H2	Ferryside	Residential	12								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T3/3/E3	Kidwelly	Employment	0	9.17ha							X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H1	Kidwelly	Residential	6								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H2	Kidwelly	Residential	27								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H3	Kidwelly	Residential	95								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H4	Kidwelly	Residential	58								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H5	Kidwelly	Residential	10								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H6	Kidwelly	Residential	36								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H7	Kidwelly	Residential	12								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H8	Kidwelly	Residential	7								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H9	Kidwelly	Residential	20								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/3/H10	Kidwelly	Residential	30								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/4/H1	Trimsaran	Residential	7								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/4/H2	Trimsaran	Residential	11								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/4/H3	Trimsaran	Residential	6								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
T3/4/H4	Trimsaran	Residential	20								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/4/H5	Trimsaran	Residential	35								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/4/H6	Trimsaran	Residential	62								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/4/H7	Trimsaran	Residential	23								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H1	Meinciau	Residential	30								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H10	Ponthenri	Residential	7								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H2	Pontyates	Residential	12								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H3	Pontyates	Residential	20								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H4	Pontyates	Residential	8								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H5	Pontyates	Residential	8								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H6	Pontyates	Residential	16								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H7	Pontyates	Residential	8								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H8	Pontyates	Residential	100								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/5/H9	Ponthenri	Residential	30								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/6/H1	Pontyberem	Residential	13								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/6/H2	Pontyberem	Residential	40								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/6/H3	Pontyberem	Residential	6								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/6/H4	Pontyberem	Residential	20								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/6/H5	Pontyberem	Residential	6								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
T3/6/H6	Pontyberem	Residential	55								X	Tywi	X	CBEEMS	Foul drains into Estuary via tributary
T3/7/H1	Hendy	Residential	35								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/7/H2	Hendy	Residential	5								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/7/H3	Hendy	Residential	66								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/7/H4	Hendy	Residential	20								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/7/H5	Hendy	Residential	28								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/7/H6	Hendy	Residential	7								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/7/H7	Hendy	Residential	17								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/7/H8	Hendy	Residential	35								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/7/H9	Hendy	Residential	6								X	Tywi	X	CBEEMS	Foul drains into Estuary
T3/8/H14	Glanamman/ Garnant	Residential	19								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/E1	Glanamman	Employment	0	0.7ha							X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H1	Glanamman/ Garnant	Residential	28								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H10	Glanamman/ Garnant	Residential	5								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H11	Glanamman/ Garnant	Residential	5								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H12	Glanamman/ Garnant	Residential	5								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H2	Glanamman/ Garnant	Residential	12								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H3	Glanamman/ Garnant	Residential	70								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H4	Glanamman/ Garnant	Residential	35								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
T3/8/H5	Glanamman/ Garnant	Residential	13								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H6	Glanamman/ Garnant	Residential	9								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H7	Glanamman/ Garnant	Residential	8								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H8	Glanamman/ Garnant	Residential	8								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H9	Glanamman/ Garnant	Residential	22								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/8/H13	Glanamman/ Garnant	Residential	8								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/9/E1	Brynamman	Employment	0	2.76ha							X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/9/H1	Brynamman	Residential	22								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/9/H2	Brynamman	Residential	8								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/9/H3	Brynamman	Residential	5								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/9/H4	Brynamman	Residential	65								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/9/H5	Brynamman	Residential	7								X	Tywi	X	CBEEMS	Foul drains into R. Aman, then into R. Loughor, then CBEEMS
T3/10/H1	Llangadog	Residential	27								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T3/10/H2	Llangadog	Residential	10								X	Tywi	X	Tywi, CBEEMS	Foul drains into R. Tywi
T3/11/E1	Llanybydder	Employment	0	0.51ha							X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T3/11/H1	Llanybydder	Residential	10								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T3/11/H2	Llanybydder	Residential	10								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi

Site Reference	Settlement	Proposed Use	Indicative Figure	Employment ha	Spatial Impacts						Non Spatial Impacts				
					Land take	Disturbance	Air quality	Fragmentation	Non-native species	European Site affected	Water resource	European Site affected	Water quality	European Site affected	
T3/11/H3	Llanybydder	Residential	39								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T3/11/H4	Llanybydder	Residential	16								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi
T3/11/H5	Llanybydder	Residential	23								X	Teifi	X	Teifi, Cardigan Bay	Foul drains into R. Teifi

Appendix G Consultation with NRW



Cyngor Cefn Gwlad Cymru Countryside Council for Wales

CADEIRYDD/CHAIRMAN: MORGAN PARRY

Anfonwch eich ateb at/Please reply to:

Kerry Rogers

Llinell Union/Direct Line: 01792 326450

Ffacs/Fax: 01792 326451

Ebost/email: k.rogers@ccw.gov.uk

PRIF WEITHREDWR/CHIEF EXECUTIVE: ROGER THOMAS

Cyngor Cefn Gwlad Cymru / Countryside Council for Wales

Maes Newydd

Ffordd Britannic Orllewinol / Britannic Way West

Llandarsi / Llandarcy

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Ein Rhif Cyf / Our Ref No: 09.89230

20 June 2011

Email to: iona.pearson@jacobs.com

Dear Iona

CARMARTHENSHIRE COUNTY COUNCIL DEPOSIT LOCAL DEVELOPMENT PLAN DRAFT HABITATS REGULATIONS ASSESSMENT (HRA), MARCH 2011

Thank you for consulting the Countryside Council for Wales (CCW) on Carmarthenshire's Deposit Local Development Plan draft Habitat Regulations Assessment (HRA).

Our comments are made in the context of our roles under the Conservation of Habitats and Species Regulations (2010) (as amended) and as advisers to the Welsh Government on matters pertaining to the natural heritage of Wales and its coastal waters.

CCW welcomes and supports the efforts made by Carmarthenshire County Council in relation to the HRA process. This is a thorough and comprehensive assessment of the LDP and the comments included in Annex 1 should be seen as points for additional improvement and not criticisms of the assessment itself. We particularly commend the efforts made to resolve the complex issues identified by the HRA and the iterative approach adopted both towards the assessment process and amending the Plan itself.



Gofalu am natur Cymru - ar y tir ac yn y môr • Caring for our natural heritage - on land and in the sea

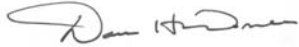
Prif Swyddfa/Headquarters

MAES-Y-FFYNNON, PENRHOSGARNEDD, BANGOR LL57 2DW FFÔN/TEL: 01248 385500 FFACS/FAX:
01248 355782

<http://www.ccw.gov.uk>

We look forward to seeing the final HRA report in due course, but if you would wish to discuss any of these points further in the meantime then please do not hesitate to contact Kerry Rogers or Huw Williams at the above address.

Yours sincerely



Dr DW Worrall
Regional Director
West Region

cc: Ian Llewellyn IRLlewelyn@cararthenshire.gov.uk
Owain Enoch OREnoch@cararthenshire.gov.uk

Annex 1

Carmarthenshire County Council Deposit Local Development Plan, Draft Habitats Regulations Assessment (HRA), March 2011

Section 4 Assessment of LDP Policies

SP 10: The justification for the assessment conclusions in respect to the Strategic Search Areas (SSA) identified in TAN 8 appears reasonable for bat and bird related impacts. We also accept that other impacts from large wind energy developments, such as potential changes in hydrology, etc. which may impact on the River Tywi SAC and River Teifi SAC, can not be meaningfully assessed at Plan level without scheme specific details. However, it should be made clear that as such projects come forward they may need to carry out project level HRA and the policy may subsequently need to be revised subject to the conclusions of those assessments. Care should also be taken that any other aspects of renewable energy generation (such as small and medium scale wind energy developments outside the SSA, hydro-electric generation or biomass installations) which may also be covered by the policy are assessed for potential impacts (for example, by creating barriers to migratory fish features or through air quality impacts).

4.2 Detailed Policy assessment

4.2.1 General policies:

- GP4 (Infrastructure and new development) and GP5 (Phasing): Along with EQ4 and EP1-3, these are key mitigation policies for some of the other development proposals in the Plan where likely significant effects have been identified (particularly the housing policies). For them to function effectively in this role they will need to be clearly linked to the monitoring strategy (with outcome reporting against relevant HRA criteria) and ideally this role should also be flagged within the policies themselves.

4.2.2 Housing:

- H1 housing allocations: Comments on specific allocations to follow and comments on general spatial and non-spatial impacts are in section 5.2
- H3 (Conversion or subdivision of existing dwellings), H4 (Replacement Dwellings), H5 (Adaptation and re-use of rural buildings) and H8 (Renovation of derelict or abandoned buildings). We largely accept that the risk associated with these policies due to potential impacts on water resources and quality will be adequately addressed by GP4 and, to some extent, by GP5 and EP1-3 (and EQ4). We also welcome the precautionary approach taken in relation to potential impacts in relation to the lesser horseshoe bat feature of the Pembrokeshire bat sites and Bosherston lakes SAC. Given that the probability of significant effects are low and only likely to be a potential issue for developments in the west of the County, the level of mitigation proposed (reference to the need for assessment if potential impacts on bats is indicated or links to appropriate species protection policies within the Plan) should be adequate to address this risk.

- H7 (Gypsy and traveller sites). Ideally specific allocations should be assessed where possible but, failing that, identifying the need for project level HRA and cross-reference to policy EQ4 should be sufficiently precautionary in relation to potential impacts on the otters features of the sites identified.
- AH2 (Affordable housing – exception sites) and AH3 (Affordable housing – minor settlement in open countryside). Providing that there are clear links to EQ4 and, where appropriate, GP4 and GP5 and EP1-3, in the policy/monitoring strategy we accept that it is unlikely that these policies will lead to any potential significant effects on the identified sites.

4.2.3 Economy and employment:

- EMP2 (New Employment proposals), EMP3 (Rural enterprises), EMP4 (Employment extensions, intensifications and continuation) and EMP5 (Farm diversification). Providing that there are clear links to EQ4 and, where appropriate, GP4 and GP5 and EP1-3 in the policy/monitoring strategy, we accept that it is unlikely that these policies will lead to any potential significant effects on the identified sites.

4.2.4 Retailing:

- RT1 (Retail hierarchy). Comments on specific allocations to follow but, providing that there are clear links to EQ4 and, where appropriate, GP4 and GP5 and EP1-3, in the policy/monitoring strategy we largely accept that it is unlikely that this policy will lead to any potential significant effects on the identified sites.

4.2.5 Transport and accessibility:

- TR1 Primary and core road network. There may be potential ‘in combination’ effects of this policy so reference should be made to the national and regional transport Plans where appropriate, particularly if the networks still have an element of development associated with them rather than being ‘existing’ networks (see comments on section 5.2.3).
- TR2 (Location of development) and TR4 (cycling and walking). These policies are potentially key mitigation policies for any diffuse air quality impacts associated with the Plan.
- TR3 (Design considerations) and TR4 (cycling and walking). Providing that there are clear links to EQ4 and, where appropriate, GP4 and GP5 and EP1-3, in the policy/monitoring strategy we agree that it is unlikely that these policies will lead to any potential significant effects on the identified sites.
- TR5 (Gwili railway). We would strongly recommend that the need for project level HRA is clearly identified in this policy and a cross reference to EQ4 included.

4.2.7 Environmental qualities – natural environment

- EQ4 (Biodiversity). This is a key mitigation policy for many of the other development proposals in the Plan where likely significant effects have been identified. For it to function effectively in this role it will need to be clearly linked to the monitoring strategy (with outcome reporting against relevant HRA criteria) and ideally this role should also be flagged within the policies themselves.

4.2.8 Renewable Energy

- RE1 (Large scale wind power) see comments on SP10 above.
- RE2 (Local community and small scale wind farms) and RE3 (Non-wind renewable energy installations). See also comments on SP10 above. Providing the specific policies contain suitable safeguards to address possible impacts on key sensitive European and international site features the conclusions are reasonable. However, the assessment should identify what these policy caveats are and demonstrate how they will address these concerns, for example avoiding impact on mobile site features particularly migratory fish, otters, bats and bird features.

4.2.9 Environmental protection.

- EP1 (water and environmental capacity), EP2 (Pollution) and EP3 (Sustainable drainage). Along with EQ4, GP4 and GP5, these are key mitigation policies for some of the other development proposals in the Plan where likely significant effects have been identified (particularly the housing policies). For them to function effectively in this role they will need to be clearly linked to the monitoring strategy (with outcome reporting against relevant HRA criteria) and ideally this role should also be flagged within the policies themselves.
- EP4 (Coastal management) and EP5 (Coastal development). While we welcome the consideration of the Swansea and Carmarthen Bay Shoreline Management Plan, which is currently being updated (SMP2), and largely accept that the 'Hold the Line' (HTL) policies mostly apply for the period of the LDP (the first 20 year 'epoch' of the SMP2) it is important to ensure that the SMP2 policy proposals for the second (20 – 50 years) and third epochs (50 – 100 years) are considered in this assessment. It may be that the proposals for the SMP2 policy unit is consistent across all three epochs but if an alternative policy is proposed (such as 'managed realignment'), particularly for the second epoch, this could have significant repercussions if development is likely to occur towards the end of the Plan period (see also comments on section 5.2.4). We would welcome, therefore, further clarification on this point. In addition, as identified, coastal development has the potential to lead to increased disturbance along the coast both directly on species features close to the shore and indirectly by increasing recreational usage within the Carmarthen Bay suite of European sites or the Pembrokeshire Marine SAC. While we largely accept that these disturbances impacts are unlikely to be significant 'alone' there are potential 'in combination' effects when considered with other plans and projects along the coast, particularly adjacent LDPs and national recreational plans (such as the Wales Coastal Tourism Strategy), etc. We recommend that a clear commitment is made to implement any joint management initiatives and include appropriate monitoring criteria within the monitoring strategy to ensure that any increase in disturbance is identified and addressed before any adverse effects can occur.

4.2.11 Tourism:

- TSM1 (Static caravan and chalet sites), TSM2 (Touring caravan and camping sites) and TSM 3 (Tourism development in the open countryside). In addition to including a reference to policy EQ4 the potential 'in combination' disturbance impacts outlined above for EP4 and EP5 should also be considered here.

4.2.12 Minerals:

- MPP6 (Unconventional gas exploration and extraction). While we appreciate that environmental protection is a key element of this policy it would be suitably precautionary to make specific reference to EQ4 as is the recommendation for other similar policies with the potential to impact on European sites.

4.3 Incorporation of recommendations

Providing the above points are addressed and the conclusions of this assessment incorporated into the Plan we largely agree with the conclusion of no likely significant effect from this suite of policies.

5.0 Assessment of Proposals

5.2 Potential impacts.

5.2.1 Spatial impacts:

- i. GA1 Carmarthen. Detailed comments on specific allocations to follow. We accept that the likely significant effects of these proposals will mainly relate to disturbance to otter and providing the mitigation measures identified at scheme implementation and the necessity for project level HRA are clearly referenced within the Plan (for example, by reference to EQ4) this should be adequate. The potential 'in combination' effects with the Carmarthen West link road are also noted but, providing the road proposals also follow best practice, the combined impacts of the road link and the LDP development should not lead to significant fragmentation of otter habitat or disturbance. The presence of, and potential impact on, migratory fish features should also be more clearly identified in the assessment particularly in relation to potential disturbance from development, but we accept that the allocations are far enough away from the main river corridor that this is not likely to be significant at Plan level.
- ii. GA2 Llanelli and T2/1 Burry Port and Pembrey. Detailed comments on specific allocations to follow. See also comments on EP4 and EP5 above in relation to coastal development and management issues and the need to check and cross-reference with specific SMP2 policies. We welcome that the potential impact of disturbance on the bird features of the Carmarthen Bay SPA and Burry Inlet Ramsar site and the otter feature of the Carmarthen Bay and Estuaries SAC are acknowledged in the HRA and largely accept that these impacts can not be meaningfully assessed further at this level and will need to be assessed in detail at project level. However, the potential mitigation measures that will be required (particularly timing of works) and the need for project level HRA should still be clearly identified in the policies themselves.

We also note the clear potential for development in this strategic growth area to lead to adverse water quality impacts on the above sites related to potentially limited sewage treatment capacity. We accept that this is a complex issue involving surface/foul water drainage separation and non-point source nutrient inputs, but emphasise that the Carmarthenshire LDP must demonstrate that the development it proposes will not lead to any significant adverse effects in this context. CCW would, therefore, urge continued dialogue with Dwr Cymru Welsh Water and Environment Agency Wales on this subject and recommend that Carmarthenshire, in conjunction with City and County of Swansea, consider carrying out more detailed studies, such as a water cycle study, to further refine our understanding of the issues. CCW feels that the policies currently in place within the draft LDP (particularly EQ4, GP4 & GP5 and EP1-3), if rigorously applied, are sufficiently precautionary to ensure that any of the new development proposed by the Plan would only progress once it was shown that there were no adverse effects. We would recommend that these policies clearly identify that they perform this function and that the monitoring strategy includes appropriate criteria (such as number of completions containing SuDS, additional provision of capacity etc.) which are also linked to this HRA requirements.

- iii. GA3 Ammanford/Cross Hands. Detailed comments on specific allocations to follow. We note the main impacts on the features of the Caeau Mynydd Mawr SAC relate to habitat loss and fragmentation (in relation to the meta-population area) and potential reduction in air quality. While we largely accept that the main air quality impacts likely to result from the proposals relate to transport, we do not feel that the justification given is suitably precautionary in this instance (ie past trends show a reduction in % critical load). However, we do accept that policies such as GP1 and TR2 and TR4 should help ensure that there is no further deterioration in air quality and ideally an improvement as a result of implementing the Plan. We would recommend that this is highlighted in the HRA and that the appropriate air quality monitoring indicator is linked to this issue in the monitoring strategy to ensure that these policies are delivering as expected.

We also acknowledge that the potential impacts relating to land take and fragmentation on the marsh fritillary meta-population are complex and difficult to assess at Plan level. While it may be feasible to remove all allocations within GA3 which might impact on potential marsh fritillary habitat, such an action would not necessarily address the habitat fragmentation issue or guarantee the long term security of the marsh fritillary population as measured against the conservation objectives. However, given that the minimum of 10ha of 'good' quality supporting habitat required by the current conservation objectives is not currently being met and is likely to be reduced further by the proposals in GA3, there is a clear and urgent need for mitigation to be identified. We welcome and support the proposal to deal with this uncertainty by developing Supplementary Planning Guidance (SPG) which will apply to all the proposed development in GA3 and identify how the issues of fragmentation and habitat loss will be managed and what mitigation will be necessary before development can proceed.

However, it must be made clear in the Plan itself that implementation of policy GA3 is subject to production of this SPG (and the detailed HRA that will be carried out as part of its production) and particularly that any loss of 'good' quality habitat induced by the development of any allocations must be fully and appropriately mitigated before development could be permitted.

We accept that the likely significant effects of these proposals relating to potential disturbance to the otter feature should be adequately addressed providing the mitigation measures identified at scheme implementation and the necessity for project level HRA are clearly referenced within the Plan (for example, by reference to EQ4).

Finally, while spatial separation is not generally sufficient justification for assuming lack of significant effects, given the conservation objectives and likely impacts from GA3, we largely accept the justification for determining that here will be no likely significant effects on the Cernydd Carmel SAC.

5.2.2 Non-spatial impacts:

i) Water Resources. We welcome the precautionary approach taken to the potential impacts on the River Teifi SAC, River Tywi SAC and the Cleddau Rivers SAC. We also largely accept that these will be unlikely to be significant for the Teifi and Tywi and that the mitigation provided by policies GP1, GP4 (Infrastructure and new development), GP5 (Phasing), EQ4 and EP1-3 should be sufficient to avoid any adverse effects on all three sites. We would, however, recommend that an appropriate indicator is included in the monitoring strategy to ensure that these policies perform as expected in this respect.

ii) Water Quality. See comments on 5.2.1.ii above in relation to water quality impacts.

5.2.3 'In combination' effects

i) Neighbouring local authority areas

Pembrokeshire – we note that the only potential 'in combination' effects relate to the Cleddau Rivers SAC, we consider this in the 'non-spatial in combination effects' section below. However, several policies were identified in section 4 with the potential, albeit slight, to impact on the Pembrokeshire bat sites and Bosherton lakes SAC. While we accept that the proposed mitigation identified for these policies should mitigate for any potential significant effects, this should still be considered in this element of the assessment to ensure that there are no residual impacts that could lead to 'in combination' effects when considered in conjunction with both the Pembrokeshire LDP, regional and national transport plans and other policies within this Plan.

Non Spatial Impacts - We note the justification for no 'in combination' effects with Pembrokeshire and Ceredigion local authorities in relation to water resources. While we largely accept this in relation to possible impacts on the River Teifi and Tywi SACs, there are a number of issues identified for the Cleddau Rivers under the Environment Agency's Review of Consents process.

We understand that the revised draft Dwr Cymru Welsh Water Water Resources Management Plan addresses these issues to some extent and the policies identified above should ensure no adverse effects as a result of development proposed in this LDP, but we would recommend that, due to the potential for ‘in combination’ effects, the monitoring strategy includes an indicator for water resources to ensure these policies perform as expected.

We would have also expected potential ‘in combination’ water quality effects associated with development in the Swansea area which may feed into the Carmarthen Bay and Burry Inlet suite of sites to have been considered here. We note from the section above and described in the detailed assessment of policy GA2, the potential clearly exists for such ‘in combination’ effects, though we also accept that it would be difficult to assess these potential effects at the current time and that the mitigation measures identified to deal with water quality issues associated with GA2 should ensure that any development resulting from the Plan will not lead to any adverse effects on the Carmarthen Bay and Burry Inlet suite of sites. However, the potential should still be acknowledged in this section of the HRA.

ii) Regional Transport Plans. We note the clear identification of potential ‘in combination’ effects associated with the development in GA3 and the Cross Hands link road. Therefore, we strongly recommend that proposed SPG for GA3 also covers any likely significant effects associated with the link road if at all possible. This will need to be assessed in greater detail as part of the HRA of SPG itself. Carmarthen West Link road – See comments above on Section 5.2.1.i.

5.2.4 Shoreline Management Plan. See also comments above on 4.2.9 policies EP4 and EP5. Providing the points raised in the above comments are addressed, we largely accept that the allocations located in policy units identified as ‘Hold the Line’ in the SMP2 are unlikely to lead to any ‘in combination’ effects with the SMP2. However, we also note the three allocations identified as being outside such policy units. While it may be reasonable to assume that as these allocations are either behind the railway line or to landward of existing development they are unlikely to lead to any coastal impacts, but it should also be noted that, in terms of the SMP2 policy, these areas may not have been considered in any assessment of adverse effects or calculation for compensation requirements should the SMP2 make a case for Imperative Reasons of Over-riding Public Interest (IROPI). This represents a small, but potentially significant, risk for the LDP as if the developments go ahead and are then subsequently shown to require additional defences these would have to be assessed separately and be outside the SMP2 process. We consequently strongly recommend that these issues are considered further as part of the detailed site assessment for these allocations.