



**Brindle
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Technical Information to support a Habitat Regulations Assessment (HRA)

Coleg Sir Gar, Pibwrlwyd Campus, Carmarthen

Report Reference: BG24.331

September 2025



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1 Summary

- 1.1.1 This report has been produced by Brindle and Green Limited on behalf of HSP Consulting. The site is the subject of a full application seeking to facilitate the demolition of the existing college campus, and development of new college blocks with associated parking, access and landscaping. This report provides technical information to contribute to an eventual Habitat Regulations Assessment (HRA) Screening for the above proposed project.
- 1.1.2 The application site lies approximately 190m to the east of the nearest arm of the Afon Tywi/River Tywi SAC. The site also lies approximately 600m north-east of the Carmarthen Bay and Estuaries SAC. The redline boundary forms part of the existing Coleg Sir Gar Pibwrlwyd campus and is dominated by six buildings with hardstanding alongside areas of well-mown amenity grassland, introduced shrub, scattered trees, bound by native species-rich hedgerows and treelines. The site is bordered by open agricultural land to the north and east, Pibwrlwyd Lane and additional college infrastructure to the south, and the A484 and open agricultural land to the west.
- 1.1.3 The site lies approximately 190m east of the lowest waterbody section of the Afon Tywi/River Tywi SAC, which flows into the Carmarthen Bay and Estuaries SAC, situated approximately 600m to the south west of the site. Afon Tywi/River Tywi SAC is designated for its ability to support Annex II species such as twaite shad (*Allosa fallax*), otter (*Lutra lutra*), sea lamprey (*Petromyzon marinus*), brook lamprey (*Lampetra planeri*), river lamprey (*Lampetra fluviatilis*), allis shad (*Alosa alosa*), and bullhead (*Cottus gobio*). The Carmarthen Bay and Estuaries SAC supports a high number of Annex I habitats, and Annex II species which includes the twaite shad, sea lamprey, river lamprey, allis shad and otter (See Appendix 2 for Standard Data Forms of both sites).
- 1.1.4 **No conclusion has yet been made on the potential impact of this application on nearby designated sites. Impacts to Carmarthen Bay Dunes SAC and Carmarthen Bay SPA have been screened out. Impacts to Carmarthen Bay and Estuary SAC and Afon Tywi SAC require further information and assessment.**

2 Introduction

2.1 Requirement for Habitat Regulations Assessment Screening

- 2.1.1 The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna (the Habitats Directive) protects habitats and species of European nature conservation importance. The Habitats Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 (N2K) sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) [which are classified under the Council Directive 79/409/EEC on the conservation of wild birds, the 'Birds Directive'].
- 2.1.2 Articles 6 (3) and 6 (4) of the Habitats Directive require an appropriate assessment to be undertaken on proposed plans or projects which are not necessary for the management of the site, but which are likely to have a significant effect on one or more European sites either individually, or in combination with other plans and projects.¹ This requirement is set out in the Section 61(1) of the Conservation of Habitats and Species Regulations 2017 (as amended). Following the United Kingdom's exit from the European Union, these regulations remain in place and are amended by Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 which are now in force. In this report the term 'international sites' will be used when referring to SACs, cSACs, SPAs, pSPAs and Ramsar sites.
- 2.1.3 The purpose of HRA/AA is to assess the impacts of a plan or project, in combination with the effects of other plans and projects, against the conservation objectives of an international Site and to ascertain whether it would adversely affect the integrity² of that site. Where significant negative effects are identified, alternative options or mitigation measures should be examined to avoid any potential damaging effects.

¹ Determining whether an effect is 'significant' is undertaken in relation to the designated interest features and conservation objectives of the Natura 2000 sites. If an impact on any conservation objective is assessed as being adverse, then it should be treated as significant. Where information is limited, the precautionary principle applies and significant effects should be assumed until evidence exists to the contrary.

² Integrity is described as the sites' coherence, ecological structure and function across the whole area that enables it to sustain the habitat, complex of habitats and/or levels of populations of species for which it was classified, (ODPM, 2005).

2.1.4 The methods and approach used for this screening recommends that HRA is approached in three main stages – outlined in Table 1 below. This report outlined the method and findings for **Stage 1** of the HRA process.

Table 1: Habitats Regulation Assessment: Key Stages

Stage 1	
Screening for likely significant effect	– Identify international sites in and around the plan/strategy area in a search area agreed with the statutory body – Examine conservation objectives of the interest feature(s) where available – Review project proposals and consider potential effects on international sites (magnitude, duration, location, extent) – Examine other plans and programmes that could contribute to ‘in combination’ effects, if required
	– <i>If no effects likely – report no significant effect</i> – <i>If effects are judged likely to uncertainty exists – the precautionary principle applies and proceed to Stage 2</i>
Stage 2	
Appropriate Assessment	– Complete additional scoping work including the collation of further information on sites as necessary to evaluate impact in light of conservation objectives – Agree scope and method of AA with statutory body – Consider how project ‘in combination’ with other plans and programmes will interact when implemented (the Appropriate Assessment) – Consider how effect on integrity of site could be avoided by changes to project and the consideration of alternatives – Develop mitigation measures (including timescale and mechanisms) – Report outcomes of AA including mitigation measures, consult with statutory body and wider [public] stakeholders as necessary – If project will not significantly affect an international site proceed without further reference to Habitats Regulations
	– <i>If effects or uncertainty remain following the consideration of alternatives and development of mitigations proceed to Stage 3</i>
Stage 3	
Procedures where significant effect on integrity of international site remains	– Consider alternative solutions, delete from project or modify – Consider if priority species/ habitats affected – Identify ‘imperative reasons of overriding public interest’ (IROPI) economic, social, environmental, human health, public safety – Notify statutory body – Develop and secure compensatory measures

2.2 Consultation

- 2.2.1 Consultation has been undertaken with Carmarthenshire County Council. Representatives at the county council have stated that information received from Natural Resources Wales indicates that the Carmarthen Town catchment within which the proposed project sits is not considered an issue for the Carmarthen Bay and Estuaries SAC, especially in regards to the area associated with the Burry Inlet SPA. This information is discussed further within section 4.5.
- 2.2.2 No consultation has been undertaken as yet with Natural Resources Wales at the time of writing.

2.3 Site Proposals

- 2.3.1 The application site is approximately 5.09ha in extent and is situated in a rural area on the southern periphery of Carmarthen, Carmarthenshire. The site forms part of the Coleg Sir Gar Pibwrlwyd campus and is dominated by six buildings (five of which form part of the existing college campus, and a residential building), with hardstanding alongside areas of well-mown amenity grassland, introduced shrub, scattered trees, bound by native species-rich hedgerows and treelines. The site is the subject of a full application seeking to facilitate the demolition of the existing college campus, and development of new college blocks with associated parking, access and landscaping. Current design proposals are presented within Appendix 5 of this report. The site is still within the design stage of the project.
- 2.3.2 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Brindle and Green Limited. The report is based on information provided by our client, the development proposals, and the results of a desk study and our survey of the site. This report pertains to this information only.

3 Methodology

3.1 Key Tasks

3.1.1 The key tasks to be undertaken during **Stage 1** are summarised in Table 2 below.

Table 2: HRA Stage 1, Key Tasks

Task	Criteria
Task 1 Identification of Natura 2000 sites & characterisation	– Identification of international sites both within the plan/proposal boundaries and in an area of search extending to 15km [as recommended by extant guidance] around the plan/proposal area. This includes considering hydrological connectivity's and the catchment of watercourses relating to identified designations – Information was obtained for each international site, based on publicly available information. – This included information relating to the sites' qualifying features; conservation objectives; vulnerabilities/ sensitivities, current conditions, trends & geographical boundaries.
Task 2 Identification of likely impacts	– Screening of the plan/proposal and the identification of likely impacts (including a review of the plan/proposal's aims, objectives, strategic policies, including spatial implications were identified to determine likely impacts).
Task 3 Consideration of other plans and projects	– Consideration, where appropriate of other plans and programmes that may have in-combination effects with the plan/proposal.
Task 4 Screening Assessment	– Assessment of the potential of identified impacts to affect the designated interest features of international sites – Summary of screening outcomes and recommendations.

4 Screening – HRA Stage 1

4.1 Task 1: Identification of international sites & characterisation

- 4.1.1 Three designated site lies within 15km of the site boundary as detailed in Table 3 below. Site characterisation information for the relevant sites is provided in Appendix 2.

Table 3: International sites within 15km of the proposed site

Site Name	Designation	Distance from Site
River Tywi/Afon Tywi	SAC	160m west
Carmarthen Bay and Estuaries	SAC	600m south west
Carmarthen Bay Dunes	SAC	12.9km south west
Carmarthen Bay	SPA	13.7km south

- 4.1.2 Projects can have spatial implications that extend beyond the intended site boundaries. In particular, it is recognised that distance in itself is not a definitive guide to the likelihood or severity of an impact [inaccessibility/ remoteness is typically more relevant] as factors such as the prevailing wind direction, river flow direction, and ground water flow direction will all have a bearing on the relative distance at which an impact can occur. This means that a project which entails development some distance away from an international site could still have effects on the site and therefore, needs to be considered as part of the HRA process.
- 4.1.3 Considering the potential for transboundary impacts, the screening has identified two international sites that lie within the influence of the project being appraised. The project site is located approximately 160m from the nearest section of the River Tywi/Afon Tywi SAC and is located 600m from the Carmarthen Bay and Estuaries SAC. Detailed information for relevant international sites is provided in Appendix 2.
- 4.1.4 Carmarthen Bay Dunes SAC and Carmarthen Bay SPA are considered to be at a sufficient distance from the proposed site as to be unaffected by this development.
- 4.1.5 The Afon Tywi SAC is designated for its capability to support a large spawning population of Annex II species twaite shad, as well as a population of otter. The river also supports Annex II species sea lamprey, brook lamprey, river lamprey, allis shad and bullhead (Appendix 2).

4.1.6 Carmarthen Bay and Estuaries SAC is designated for the following Annex I habitats;

- 1110 Sandbanks which are slightly covered by seawater all the time
- 1140 Estuaries
- 1140 Mudflats and sandflats not covered by sea water at low tide
- 1160 Large shallow inlets and bays
- 1310 *Salicornia* and other annuals colonising mud and sand
- 1330 Atlantic salt meadows (*Glauco puccinellietalia maritimae*)

This SAC is also designated for Annex II species including twaite shad, sea lamprey, river lamprey, allis shad and otter (Appendix 2)

4.2 Task 2: Identification of likely impacts

4.2.1 Effects likely to arise from the generic types of development are compared with those effects to which the features of each site, through there Conservation Objectives, are identified as being sensitive or vulnerable.

Table 4: Summary of potential interactions between generic effects arising from development and sensitivities of features of the international site

Generic effects arising from development	Afon Tywi SAC	Carmarthen Bay and Estuaries SAC
Change in Land Management	X	X
Urban Effects	X	X
Loss of supporting habitat/functionally linked land	X	X
Recreation	X	X
Water issues	✓	✓
Air quality	X	X
Noise pollution	X	X

4.2.2 Where there is the potential for interaction between an activity likely to arise from the proposed development, and a sensitivity which has been identified for one or more of the features of an international site, then a screening for Likely Significant Effect is undertaken, as described in 'Task 4'.

4.3 Task 3: Consideration of other plans, programmes and projects

4.3.1 It is a requirement of Article 6(3) of the Habitats Directive that HRA examines the potential for plans and projects to have a significant effect either individually or 'in combination' with other plans, programs & projects (PPPs). Each designated site and potential impact are discussed in section 4.5.

4.4 Task 4: Screening Assessment

4.4.1 In line with the screening requirement of the Habitats Regulations, an appraisal was undertaken to determine the potential significant effects of the proposed development on the international sites that lie within the influence of the proposed development. The screening decision was informed by;

- The information gathered on the international sites – **Appendix 2, Appendix 4.**
- The review of the potential effects of the development upon the sites being considered.

4.4.2 The detail of the main screening exercise is set out in section 4.5 below with the result of the assessment summarised in Table 5 below.

Table 5: HRA Screening Table Summary

International Site	Designation	AA required alone?	AA required in combination?
		X No ✓ Yes ? Uncertain	X No ✓ Yes ? Uncertain
River Tywi/Afon Tywi	SAC	Undetermined	Undetermined
Cardmarthen Bay and Estuaries	SAC	Undetermined	Undetermined

4.5 Test of Likely Significant Effect Screening Table

- 4.5.1 Where it has been identified that a screened-in activity has the potential to interact with a feature of a European site, via one or more of the factors to which that feature is sensitive, then that activity is further assessed here to determine whether it is likely to have a significant effect upon that site.

Carmarthen Bay and Estuaries SAC		
Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
Water Issues	Consultation has been undertaken with Carmarthenshire County Council. Representatives at the county council have indicated that information received from Natural Resources Wales (NRW) dictates that the Carmarthen Town catchment within which the proposed project sits is not considered an issue for the Carmarthen Bay and Estuaries SAC. The applicant has been advised that the LPA are waiting for GIS details of the catchment area from NRW, but that it is likely that the application site will not be within the catchment area and therefore effects to Carmarthen Bay and Estuaries SAC can be screened out. Clarification is awaited from Carmarthenshire County Council, and until this is available for the project, no conclusions may be drawn over the potential for likely significant effects as a result of this project upon Carmarthen Bay and Estuaries SAC, however, it is considered likely that impacts to this receptor will be screened out.	TBC
River Tywi/Afon Tywi SAC		
Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
Water issues	The proposed site lies within GB110060029260 "Nant Pibwir – headwaters to tidal limit" catchment. This catchment is identified as a "poor quality" catchment, however, the full meaning of this is not explained within the Water Watch Wales Map Gallery (NRW 2025c) where the catchment was identified.	TBC

	The name of this catchment indicates that it may flow into the Carmarthen Bay Estuary. However, the location of the site in close proximity to the SAC and the location of nearby waterbodies would indicate that surface water does have the potential to drain into the River Tywi. However, when assessed utilising Appendix 1 of the Guidance for the All Wales Nutrient Neutrality Calculator (ARUP 2025) the catchment <i>GB110060029260 "Nant Pibwir – headwaters to tidal limit"</i> is not given within the list of catchments that are "likely to have an affect on a protected site". Clarification is being sought from the LPA on this catchment and its link, if any, to protected sites. Following a review of online resources and NRW resources, it is not immediately clear if the River Tywi is classed as a nutrient sensitive SAC. Information available on the NRW website (NRW 2025a) indicates that nutrient neutrality assessments do not currently need to be undertaken for the River Tywi/Afon Tywi SAC, as it is not listed as a waterbody for consideration, however, an HRA process is still recommended in order to ensure that the SAC continues to meet water quality targets, and the guidance provided for the All Wales Nutrient Neutrality calculator (ARUP 2025) includes the River Tywi as a site that may be assessed against. In the compliance assessment (NRW 2021) the River Tywi has no phosphorus failures and within the Compliance Assessment of Welsh SACs against phosphorus targets report by NRW in 2022, all sections of the River Tywi comfortably met their phosphorus targets. A review by DTA Ecology (2022) concluded that, particularly within the southernmost two waterbody segments of the River Tywi, nutrient neutrality does not need to be applied, because these bodies are comfortably meeting water quality targets. Conflicting information therefore exists when considering whether a nutrient neutrality process needs to be undertaken for projects relating to the River Tywi SAC. An attempt has been made to utilise the All Wales Nutrient Neutrality Calculator for this site, however, it was not possible to utilise the tool, as neither the catchment the proposed site sits within (<i>GB110060029260 "Nant Pibwir – headwaters to tidal limit"</i>) or the waste water treatment plant the site will connect to, Parc Y Splott, were selectable options within the calculator – thus rendering it unusable to assess this site. The NRW also advise (NRW 2025b) that for new developments proposing connections to a public sewer, the planning authority will need to be provided with the below information; • confirmation of how foul drainage will be managed	
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	• scale plans showing the location of the nearest public sewer and proposed connection point The NRW then advises that Planning Authorities should then consult with the sewerage undertaker to determine whether the environmental permit for the associated wastewater treatment works has been assessed against the revised nutrient targets set out in the conservation objectives for the river SAC. The above consultation is yet to be undertaken – the application will connect to Parc Y Plott Wastewater Treatment Plant. No conclusion can therefore yet be made as to the potential impact of the application until information relating to the capacity of the wastewater treatment is revealed by the permit once considered by the LPA. As discussed above, as there is currently no nutrient neutrality mechanism for assessing the site against the River Tywi, a more holistic approach may need to be taken in regard to surface water once more information on this as part of the project is available. Clarification and advice is therefore required from Carmarthenshire County Council on the following counts; • Permit permissions for the proposed foul water connection to Parc y Splott waste water treatment plant • Whether a nutrient neutrality assessment for the site is a requirement, and if so, how this can be completed given the catchment and treatment plants non-inclusion within the All Wales calculator. • Clarification on Catchment GB110060029260 “Nant Pibwir – headwaters to tidal limit” and its relationship to the River Tywi or other protected sites. Additional information will also be collated from the proposed project in relation to surface water drainage for the proposed site when this is available. Until the above points and other additional information relating to surface water drainage is available for the project, no conclusions may be drawn over the potential for likely significant effects as a result of this project upon River Tywi SAC.	
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5 Conclusions and Future Work

- 5.1.1 This report outlines the methods used and the findings arising from the screening stage of the Habitats Regulations Appraisal undertaken for the proposed development.
- 5.1.2 Based on the information considered as part of the screening process, this document indicates that further information is required to be provided both from Carmarthenshire County Council regarding catchments and relating to the surface water drainage of the proposed site before a full screening assessment can be made.

Appendix 1: Site Location in relation to Protected Habitats

Figure 1: Site Location to European Designated sites within 15km. Site shown in red at centre. Shown in close for clarity – no sites were present to the North.

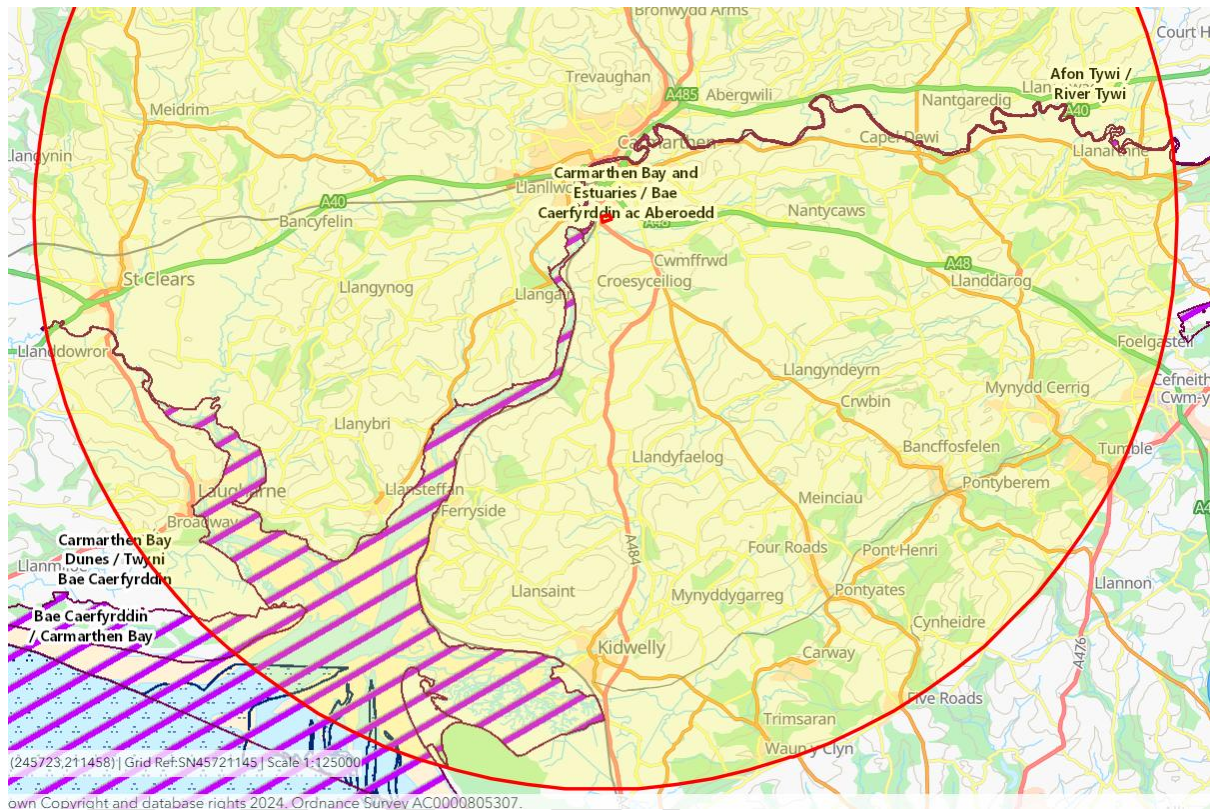
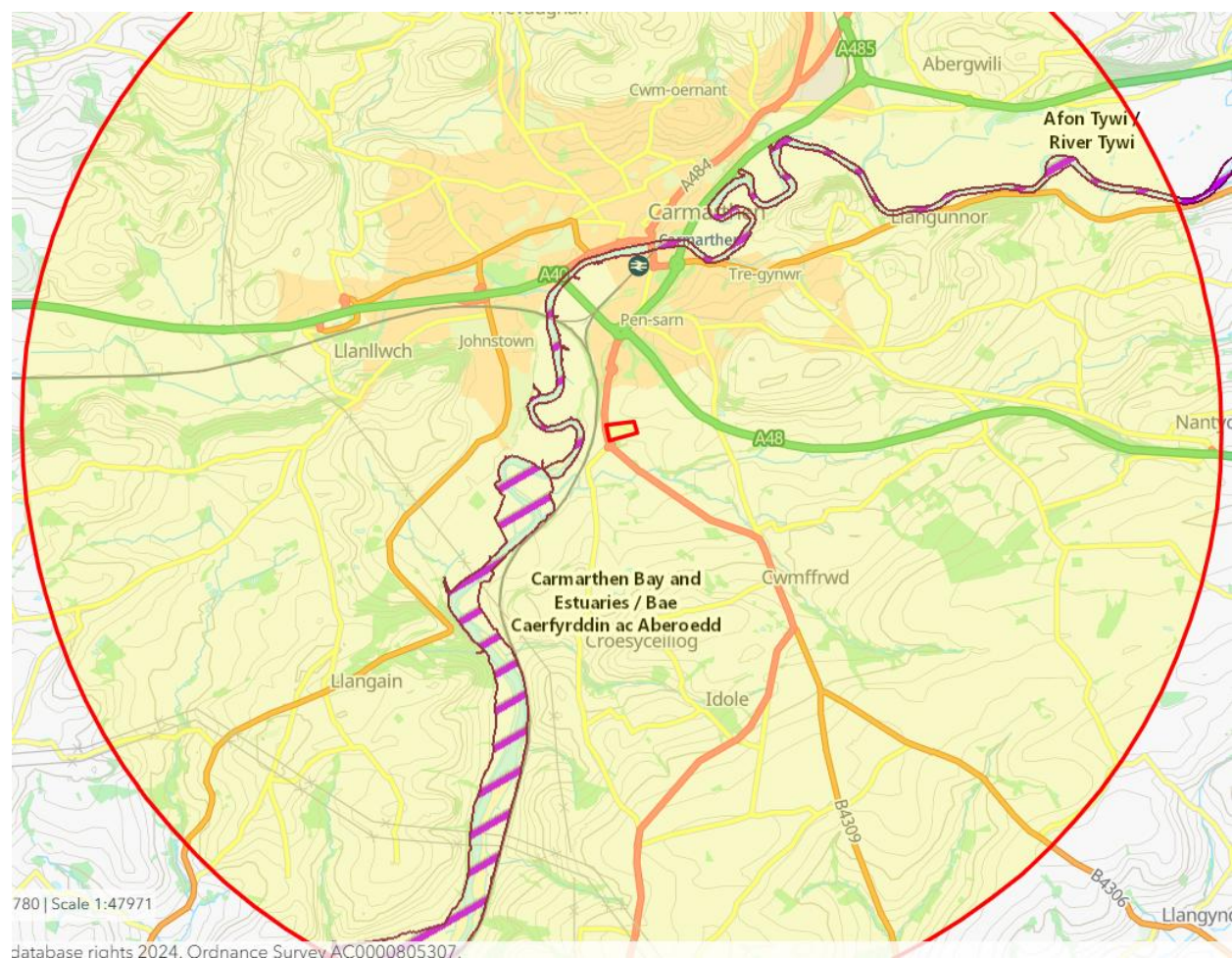


Figure 2: Site location to European Designated Sites and SSSIs within 5km. Site shown in red at centre.



Appendix 2: International Site Designation Information

Figure 3: Carmarthen Bay and Estuaries SAC Standard Data Form (Relevant pages only – full form may be found at <https://sac.jncc.gov.uk/site/UK0020020>)



NATURA 2000 - STANDARD DATA FORM

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

SITE **UK0020020**

SITENAME **Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd**

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1. SITE IDENTIFICATION

1.1 Type B	1.2 Site code UK0020020	Back to top
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1.3 Site name

Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd

1.4 First Compilation date 1996-01	1.5 Update date 2015-12
---------------------------------------	----------------------------

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1996-01
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2004-12
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/ukssi/2010/490/contents/made).

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

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Longitude
-4.3764

Latitude
51.6667

2.2 Area [ha]:
66092.05

2.3 Marine area [%]
99.3

2.4 Sitelength [km]:
0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKL1	West Wales and The Valleys
UKZZ	Extra-Regio
UKL2	East Wales

2.6 Biogeographical Region(s)

Atlantic (100.0
%)

3. ECOLOGICAL INFORMATION

3.1 Habitat types present on the site and assessment for them

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Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A B C D	A B C		
						Representativity	Relative Surface	Conservation	Global
1110			19854.05	0	G	B	C	B	B
1130			9266.11	0	G	A	B	A	A
1140			7283.34	0	G	B	B	A	B
1150	X			0		D			
1160			43686.85	0	G	B	B	B	B
1310			66.09	0	G	A	B	A	A
1320			0.0	0	G	D			

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

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

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

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

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

4. SITE DESCRIPTION

4.1 General site character

Habitat class	% Cover
N03	4.1
N01	82.1
N05	0.1
N02	13.7
Total Habitat Cover	99.99999999999999

Other Site Characteristics

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

4.2 Quality and importance

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

4.3 Threats, pressures and activities with impacts on the site

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

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

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

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

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

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

i = inside, o = outside, b = both

4.5 Documentation

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

Link(s): <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-lan>
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

5.1 Designation types at national and regional level:

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

6. SITE MANAGEMENT

6.1 Body(ies) responsible for the site management:

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Organisation:	Natural Resources Wales
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☒	Yes	Name: CARMARTHEN BAY AND ESTUARIES / BAE CAERFYRDDIN AC ABEROEDD Link: https://www.naturalresources.wales/media/673515/Carmarthen%20Bay%20R33%20Advice%20February%202009.pdf
☐	No, but in preparation	
☐	No	

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

☐ Yes ☒ No

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

Figure 4: River Tywi/Afon Tywi SAC (Relevant pages only – full form may be found at <https://sac.jncc.gov.uk/site/UK0013010>)



SITE **UK0013010**
 SITENAME **Afon Tywi/ River Tywi**

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

1. SITE IDENTIFICATION

1.1 Type	1.2 Site code Back to top
B	UK0013010

1.3 Site name

Afon Tywi/ River Tywi

1.4 First Compilation date	1.5 Update date
1998-10	2015-12

1.6 Respondent:

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

Date site proposed as SCI:	1998-10
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2004-12
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/ukxi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude
-3.911388889

Latitude
51.92

2.2 Area [ha]:
375.83

2.3 Marine area [%]
0.0

2.4 Sitelength [km]:
0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKL1	West Wales and The Valleys

2.6 Biogeographical Region(s)

Atlantic (100.0
%)

3. ECOLOGICAL INFORMATION

3.1 Habitat types present on the site and assessment for them

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Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A B C D	A B C		
						Representativity	Relative Surface	Conservation	Global
3260			0.98	0	G	D			

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

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

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size	Unit	Cat.	D.qual.		A B C D	A B C		

					Min	Max				Pop.	Con.	Iso.	Glo.
F	1102	Alosa alosa		p				P	DD	C	C	B	C
F	1103	Alosa fallax		p				P	DD	A	A	C	A
F	1163	Cottus gobio		p				P	DD	C	B	C	C
F	1099	Lampetra fluviatilis		p				P	DD	C	B	C	C
F	1096	Lampetra planeri		p				P	DD	C	C	C	C
M	1355	Lutra lutra		p				C	DD	C	B	C	B
I	1029	Margaritifera margaritifera		p				P	DD	D			
F	1095	Petromyzon marinus		p				P	DD	C	B	C	C
F	1106	Salmo salar		p				P	DD	D			

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

4. SITE DESCRIPTION

4.1 General site character

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Habitat class	% Cover
N06	62.0
N16	7.0
N14	3.0
N08	4.0
N03	2.0
N07	6.0
N05	7.0
N02	9.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: shingle,sandstone,limestone,mud,alluvium 2 Terrestrial: Geomorphology and landscape: floodplain,lowland,valley 3 Marine: Geology: mud 4 Marine: Geomorphology: estuary

4.2 Quality and importance

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. Lampetra planeri 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 Threats, pressures and activities with impacts on the site

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

Negative Impacts				Positive Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]	Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
H	H01		B	M	J03		I
H	A04		I	M	A02		I
H	J02		B				
H	M01		B				
M	I01		I				
M	C01		I				

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

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

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

i = inside, o = outside, b = both

4.5 Documentation

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

Link(s): <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-lan>

http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

5.1 Designation types at national and regional level:

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Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

6.1 Body(ies) responsible for the site management:

[Back to top](#)

Organisation:	Natural Resources Wales
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☒	Yes	Name: AFON TYWI / RIVER TYWI Link: https://www.naturalresources.wales/media/670732/Afon_Tywi_-_Man%20Plan%20English.pdf
☐	No, but in preparation	
☐	No	



:

Appendix 3: Development Types and Summary of Potential Effects on International Sites

Type of Development	Potential Impacts of Development	Example	Summary of Effects on International Sites
Housing	Land take	This could be the direct loss of designated land or the indirect loss of important surrounding habitat.	– Habitat Fragmentation & Loss – Disturbance – Changes to Hydrological Regime – Changes in Water Quality
	Increased abstraction levels	Increased abstraction levels can lead to a decrease in water levels, which can affect water quality and designated flora.	– Changes to Hydrological Regime – Changes in Water Quality
	Increased traffic movements	Diffuse air pollution can also affect water quality (eutrophication).	– Changes in Air Quality – Disturbance
	Growth in requirements for waste management facilities and increased demand for minerals	See Waste & Minerals	– See Waste & Minerals
	Increased need for further infrastructure provision.	See Infrastructure	– See Infrastructure

Type of Development	Potential Impacts of Development	Example	Summary of Effects on International Sites
	Increase in population and therefore recreation levels	Some designated species and habitats are sensitive to disturbance - an increase in population can lead to higher levels of disturbance.	– Disturbance
	Increased noise and light pollution	Some designated species are sensitive to disturbance, such as the Lesser Horseshoe Bat.	– Disturbance
	Impacts on surface water run-off	An increase in non-permeable surfaces can lead to increased flood risk.	– Changes to Hydrological Regime – Changes in Water Quality
Employment	Land take	This could be the direct loss of designated land or the indirect loss of important surrounding habitat.	– Habitat Fragmentation & Loss – Disturbance – Changes to Hydrological Regime – Changes in Water Quality
	Increased demand for water resources	Increased abstraction levels can lead to a decrease in water levels, which can affect water quality and designated flora.	– Changes to Hydrological Regime – Changes in Water Quality
	Increased traffic movements	Diffuse air pollution can also affect water quality (eutrophication).	– Changes in Air Quality – Disturbance

Type of Development	Potential Impacts of Development	Example	Summary of Effects on International Sites
	Growth in requirements for waste management facilities and increased demand for minerals	See Waste & Minerals	– See Waste & Minerals
	Increased need for further infrastructure provision.	See Infrastructure	– See Infrastructure
	Increase in population and therefore recreation levels	Some designated species and habitats are sensitive to disturbance - an increase in population can lead to higher levels of disturbance.	– Disturbance
	Increased noise and light pollution	Some designated species are sensitive to disturbance, such as the Lesser Horseshoe Bat.	– Disturbance
	Impacts on surface water run-off	An increase in non-permeable surfaces can lead to increased flood risk.	– Changes to Hydrological Regime – Changes in Water Quality
Waste & Minerals	Land take	This could be the direct loss of designated land or the indirect loss of important surrounding habitat.	– Habitat Fragmentation – Disturbance
	Increased transport movements	Diffuse air pollution can also affect water quality (eutrophication).	– Changes in Air Quality – Disturbance
	Dust, noise and odour associated with industrial processes	Some designated species are sensitive to disturbance, such as the Lesser Horseshoe Bat.	– Changes in Air Quality – Disturbance

Type of Development	Potential Impacts of Development	Example	Summary of Effects on International Sites
	Contamination, accumulation of toxic substances	This can lead to a decrease in water and soil quality.	– Changes in Water Quality
	Wastewater	There is the potential for high concentrations of metals, dissolved nitrogen and organic material associated with certain waste and minerals development.	– Changes in Water Quality
	Topography alteration	Impacts on surface water run-off could increase the risk of flooding.	– Changes to Hydrological Regime – Changes in Water Quality
	Aggregates removal	Aggregates removal will have effects on groundwater flow and water quality.	– Changes to Hydrological Regime – Changes in Water Quality
Infrastructure e.g. Roads Water Supply Wastewater Power Grid Flood Management	Land Take	Development of a new road could, for example, involve the construction of a bridge over a river, which could act as a barrier to migration for certain fish species.	– Habitat Fragmentation – Barriers to Migration – Disturbance
	Impacts on surface water run-off	An increase in non-permeable surfaces can lead to increased flood risk.	– Changes to Hydrological Regime – Changes in Water Quality
	Increased transport movements	Diffuse air pollution can also affect water quality (eutrophication).	– Changes in Air Quality – Disturbance

Type of Development	Potential Impacts of Development	Example	Summary of Effects on International Sites
Renewables Development	Laying pipes and cables	The laying of pipes and cables underground could disturb groundwater flow and there is also the potential for leakage of wastewater.	– Changes to Hydrological Regime – Changes in Water Quality – Disturbance

Appendix 4: References

Natural Resources Wales (2022) Core Management Plan including conservation objectives for Afon Tywi/River Tywi SAC https://naturalresources.wales/media/670732/afon_tywi_-_man-plan-english.pdf

Natural Resources Wales (2021) Compliance Assessment of Welsh River SACs against Phosphorus Targets <https://cdn.cyfoethnaturiol.cymru/693025/compliance-assessment-of-welsh-sacs-against-phosphorus-targets-final-v10.pdf?rmode=pad&v=1d6f0188dbd19b0>

DTA Ecology (2022) River Tywi SAC – application of nutrient neutrality in a headroom catchment *Advice to Carmarthenshire County Council*

Natural Resources Wales (2025a) WEBPAGE: *Principles of nutrient neutrality in relation to development or water discharge permit proposals* <https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-planning-authorities/principles-of-nutrient-neutrality-in-relation-to-development-or-water-discharge-permit-proposals/?lang=en>

Natural Resources Wales (2025b) WEBPAGE: *Advice to planning authorities for planning applications affecting nutrient sensitive Special Areas of Conservation* <https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-planning-authorities/advice-to-planning-authorities-for-planning-applications-affecting-phosphorus-sensitive-special-areas-of-conservation/?lang=en>

ARUP (2025) NUTRIENT BUDGET CALCULATOR GUIDANCE: A guide on how to calculate a nutrient budget for a development using the Nutrient Budget Calculator for Wales <https://www.gov.wales/sites/default/files/publications/2025-06/nutrient-budget-calculator-guidance.pdf>

Natural Resources Wales (2025c) Water Watch Wales Gallery <https://waterwatchwales-nrw.hub.arcgis.com/>

BG24.331 Coleg Sir Gar – Technical Note to support HRA

