

# 6b. Aquifer Within Bedrock Geology and Abstraction Licences



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# 6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences



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# 6d. Hydrogeology – Source Protection Zones within confined aquifer







# 6e. Hydrology – Watercourse Network and River Quality





# 6.Hydrogeology and Hydrology

# 6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distanc e (m)	Direction	Designation	Description
5	0	On Site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
8	3	S	Unknown (lakes+landslip)	Unknown

# 6.2 Aquifer within Bedrock Deposits

Records of strata classification within the bedrock geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distanc e (m)	Direction	Designation	Description
7	0	On Site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers
3	64	Ν	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
8	333	NW	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers
4	360	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	428	NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
9	481	S	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers



# 6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site

Identified

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Detai	ls
Not show n	880	S	311620 166620	Status: Historical Licence No: 21/58/31/0030 Details: General use relating to Secondary Category (Medium Loss) Direct Source: EAW Groundwater Point: BOREHOLE AT BARRY ISLAND PLEASURE PARK Data Type: Point Name: Hyper Value Holdings Limited	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 21/03/1997 Expiry Date: 21/03/2002 Issue No: 100 Version Start Date: 21/03/1997 Version End Date:
Not show n	880	S	311620 166620	Status: Historical Licence No: 21/58/31/0031 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: EAW Groundwater Point: BOREHOLE AT BARRY ISLAND PLEASURE PARK Data Type: Point Name: Hyper Value Holdings Limited	Annual Volume (m <sup>3</sup> ): 41,172 Max Daily Volume (m <sup>3</sup> ): 113 Original Application No: - Original Start Date: 31/05/2002 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 21/05/2004 Version End Date:

# 6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site

Identified

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Deta	ils
Not shown	1763	Ν	312057 169178	Status: Active Licence No: WA/058/0011/003 Details: Unknown (Impounding) - Direct Source: - Point: - Data Type: Line Name: -	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: - Original Start Date: Oct 27 2014 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date:
Not shown	1814	Ν	311931 169271	Status: Historical Licence No: WA/058/0011/004 Details: Transfer Between Sources (Pre Water Act 2003) Direct Source: EAW Surface Water Point: UN-NAMED TRIBUTARY OF THE COLD BROOK Data Type: Point Name: The Vale of Glamorgan Council	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: - Original Start Date: 27/10/2014 Expiry Date: 31/03/2030 Issue No: 1 Version Start Date: 27/10/2014 Version End Date:
Not shown	1814	Ν	311931 169271	Status: Active Licence No: WA/058/0011/004 Details: Transfer between Sources (Pre Water Act 2003) - Very Low Direct Source: - Point: - Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: Oct 27 2014 12:00AM Expiry Date: Mar 31 2030 12:00AM Issue No: - Version Start Date: -

	Name: -	Version End Date:
6.5 Potable Water Abstraction	Licences	
Potable Water Abstraction Licences w	ithin 2000m of the study site	None identified
Data	base searched and no data found.	
6.6 Source Protection Zones		
Source Protection Zones within 500m	of the study site	None identified

Database searched and no data found.

# 6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site None identified

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.



Distance

(m)

Direction

NGR

ID

Details



# 6.8 Groundwater Vulnerability and Soil Leaching Potential

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
65	NW	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
413	S	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.

# 6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site None identified

#### 6.9.1 Biological Quality:

Database searched and no data found.

#### 6.9.2 Chemical Quality:

Database searched and no data found.

## 6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey MasterMap Water Network entries within 500m of the study site

Database searched and no data found.



# 6.11 Surface Water Features

Surface water features within 250m of the study site

Identified

The following surface water records are not represented on mapping:

Distance (m)	Direction
0	On Site
182	SW



# 7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)





# 7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map





# 7 Flooding

# 7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m Identified

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Туре
1	0	On Site	19-Nov-2019	Zone 2 - (Fluvial /Tidal Models)
2A	0	On Site	19-Nov-2019	Zone 2 - (Fluvial /Tidal Models)
3A	0	On Site	19-Nov-2019	Zone 2 - (Fluvial /Tidal Models)

## 7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m Identified

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

ID	Distance (m)	Direction	Update	Туре
1	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
2A	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
3A	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
	0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)



0	On Site	19-Nov-2019	Zone 3 - (Fluvial Models)
1	S	19-Nov-2019	Zone 3 - (Fluvial Models)
1	S	19-Nov-2019	Zone 3 - (Fluvial Models)
2	S	19-Nov-2019	Zone 3 - (Fluvial Models)
2	S	19-Nov-2019	Zone 3 - (Fluvial Models)
3	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
4	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
16	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
17	W	19-Nov-2019	Zone 3 - (Fluvial Models)
17	W	19-Nov-2019	Zone 3 - (Fluvial Models)
18	W	19-Nov-2019	Zone 3 - (Fluvial Models)
19	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
21	W	19-Nov-2019	Zone 3 - (Fluvial Models)
24	W	19-Nov-2019	Zone 3 - (Fluvial Models)
36	W	19-Nov-2019	Zone 3 - (Fluvial Models)
38	W	19-Nov-2019	Zone 3 - (Fluvial Models)
38	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
44	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
45	Е	19-Nov-2019	Zone 3 - (Fluvial Models)
47	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
52	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
52	Е	19-Nov-2019	Zone 3 - (Fluvial Models)
53	NE	19-Nov-2019	Zone 3 - (Fluvial Models)
57	Е	19-Nov-2019	Zone 3 - (Fluvial Models)
59	W	19-Nov-2019	Zone 3 - (Fluvial Models)
65	Е	19-Nov-2019	Zone 3 - (Fluvial Models)
87	Е	19-Nov-2019	Zone 3 - (Fluvial Models)
94	Е	19-Nov-2019	Zone 3 - (Fluvial Models)



100	E	19-Nov-2019	Zone 3 - (Fluvial Models)
103	W	19-Nov-2019	Zone 3 - (Fluvial Models)
103	W	19-Nov-2019	Zone 3 - (Fluvial Models)
105	E	19-Nov-2019	Zone 3 - (Fluvial Models)
109	E	19-Nov-2019	Zone 3 - (Fluvial Models)
110	E	19-Nov-2019	Zone 3 - (Fluvial Models)
114	E	19-Nov-2019	Zone 3 - (Fluvial Models)
117	E	19-Nov-2019	Zone 3 - (Fluvial Models)
124	E	19-Nov-2019	Zone 3 - (Fluvial Models)
125	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
127	E	19-Nov-2019	Zone 3 - (Fluvial Models)
127	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
127	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
128	S	19-Nov-2019	Zone 3 - (Fluvial Models)
128	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
128	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
129	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
129	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
129	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
130	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
130	S	19-Nov-2019	Zone 3 - (Fluvial Models)
130	E	19-Nov-2019	Zone 3 - (Fluvial Models)
130	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
130	S	19-Nov-2019	Zone 3 - (Fluvial Models)
131	S	19-Nov-2019	Zone 3 - (Fluvial Models)
131	S	19-Nov-2019	Zone 3 - (Fluvial Models)
131	S	19-Nov-2019	Zone 3 - (Fluvial Models)
131	S	19-Nov-2019	Zone 3 - (Fluvial Models)



131	S	19-Nov-2019	Zone 3 - (Fluvial Models)
132	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
132	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
132	S	19-Nov-2019	Zone 3 - (Fluvial Models)
132	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
132	S	19-Nov-2019	Zone 3 - (Fluvial Models)
132	S	19-Nov-2019	Zone 3 - (Fluvial Models)
132	S	19-Nov-2019	Zone 3 - (Fluvial Models)
133	S	19-Nov-2019	Zone 3 - (Fluvial Models)
133	S	19-Nov-2019	Zone 3 - (Fluvial Models)
133	S	19-Nov-2019	Zone 3 - (Fluvial Models)
133	S	19-Nov-2019	Zone 3 - (Fluvial Models)
133	S	19-Nov-2019	Zone 3 - (Fluvial Models)
133	S	19-Nov-2019	Zone 3 - (Fluvial Models)
133	S	19-Nov-2019	Zone 3 - (Fluvial Models)
134	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
135	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
135	S	19-Nov-2019	Zone 3 - (Fluvial Models)
136	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
136	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
136	Е	19-Nov-2019	Zone 3 - (Fluvial Models)
136	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
137	Е	19-Nov-2019	Zone 3 - (Fluvial Models)
137	S	19-Nov-2019	Zone 3 - (Fluvial Models)
137	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
138	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
138	S	19-Nov-2019	Zone 3 - (Fluvial Models)
138	E	19-Nov-2019	Zone 3 - (Fluvial Models)



138	E	19-Nov-2019	Zone 3 - (Fluvial Models)
140	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
141	E	19-Nov-2019	Zone 3 - (Fluvial Models)
141	S	19-Nov-2019	Zone 3 - (Fluvial Models)
141	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
141	E	19-Nov-2019	Zone 3 - (Fluvial Models)
142	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
142	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
143	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
144	S	19-Nov-2019	Zone 3 - (Fluvial Models)
145	S	19-Nov-2019	Zone 3 - (Fluvial Models)
146	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
148	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
149	S	19-Nov-2019	Zone 3 - (Fluvial Models)
149	S	19-Nov-2019	Zone 3 - (Fluvial Models)
150	E	19-Nov-2019	Zone 3 - (Fluvial Models)
150	S	19-Nov-2019	Zone 3 - (Fluvial Models)
151	S	19-Nov-2019	Zone 3 - (Fluvial Models)
151	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
151	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
152	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
152	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
153	E	19-Nov-2019	Zone 3 - (Fluvial Models)
155	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
155	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
155	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
158	SW	19-Nov-2019	Zone 3 - (Fluvial Models)
160	S	19-Nov-2019	Zone 3 - (Fluvial Models)



161	S	19-Nov-2019	Zone 3 - (Fluvial Models)
162	S	19-Nov-2019	Zone 3 - (Fluvial Models)
164	S	19-Nov-2019	Zone 3 - (Fluvial Models)
165	S	19-Nov-2019	Zone 3 - (Fluvial Models)
168	S	19-Nov-2019	Zone 3 - (Fluvial Models)
168	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
171	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
178	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
179	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
188	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
189	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
189	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
190	E	19-Nov-2019	Zone 3 - (Fluvial Models)
190	E	19-Nov-2019	Zone 3 - (Fluvial Models)
194	E	19-Nov-2019	Zone 3 - (Fluvial Models)
197	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
198	E	19-Nov-2019	Zone 3 - (Fluvial Models)
199	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
205	S	19-Nov-2019	Zone 3 - (Fluvial Models)
206	S	19-Nov-2019	Zone 3 - (Fluvial Models)
206	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
207	S	19-Nov-2019	Zone 3 - (Fluvial Models)
208	S	19-Nov-2019	Zone 3 - (Fluvial Models)
208	S	19-Nov-2019	Zone 3 - (Fluvial Models)
208	S	19-Nov-2019	Zone 3 - (Fluvial Models)
208	S	19-Nov-2019	Zone 3 - (Fluvial Models)
208	S	19-Nov-2019	Zone 3 - (Fluvial Models)
208	S	19-Nov-2019	Zone 3 - (Fluvial Models)



209	S	19-Nov-2019	Zone 3 - (Fluvial Models)
209	S	19-Nov-2019	Zone 3 - (Fluvial Models)
209	S	19-Nov-2019	Zone 3 - (Fluvial Models)
209	S	19-Nov-2019	Zone 3 - (Fluvial Models)
209	S	19-Nov-2019	Zone 3 - (Fluvial Models)
209	S	19-Nov-2019	Zone 3 - (Fluvial Models)
209	S	19-Nov-2019	Zone 3 - (Fluvial Models)
210	S	19-Nov-2019	Zone 3 - (Fluvial Models)
211	S	19-Nov-2019	Zone 3 - (Fluvial Models)
212	S	19-Nov-2019	Zone 3 - (Fluvial Models)
212	S	19-Nov-2019	Zone 3 - (Fluvial Models)
216	S	19-Nov-2019	Zone 3 - (Fluvial Models)
217	S	19-Nov-2019	Zone 3 - (Fluvial Models)
217	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
219	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
219	S	19-Nov-2019	Zone 3 - (Fluvial Models)
219	S	19-Nov-2019	Zone 3 - (Fluvial Models)
220	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
229	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
236	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
237	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
245	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
245	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
246	SE	19-Nov-2019	Zone 3 - (Fluvial Models)
246	E	19-Nov-2019	Zone 3 - (Fluvial Models)



# 7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

#### Highest risk of flooding onsite

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Medium (greater than 1 in 100 but less than 1 in 30) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRas flood Risk
1	0.0	On Site	Low
2	0.0	On Site	Low
3	0.0	On Site	Medium
4	22.0	W	Low
5	27.0	E	Low

## 7.4 Flood Defences

Flood Defences within 250m of the study site Database searched and no data found.

## 7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site None identified

## 7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site

## 7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site Identified

Clearwater Flooding or Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

Medium

\_\_\_\_\_

None identified

Superficial Deposits Flooding

None identified



7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

# 7.8 Groundwater Flooding Confidence Areas

British Geological Survey confidence rating in this result

Moderate

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.



# 8. Designated Environmentally Sensitive Sites Map



Areas

Zones



# 8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site

Identified

# 8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

6

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
1	1032	SE	Barry Island	Natural Resources Wales
2	1040	S	Barry Island	Natural Resources Wales
Not shown	1529	SE	Hayes Point To Bendrick Rock	Natural Resources Wales
Not shown	1741	SE	Hayes Point To Bendrick Rock	Natural Resources Wales
Not shown	1809	NW	Fferm Walters	Natural Resources Wales
Not shown	1917	W	Cliff Wood - Golden Stairs	Natural Resources Wales

## 8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

## 8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.



8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

Database searched and no data found.

#### 8.5 Records of Ramsar sites within 2000m of the study site:

0

0

Database searched and no data found.

#### 8.6 Records of Ancient Woodland within 2000m of the study site:

9

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
12	1331	W	Unknown	Ancient Semi Natural Woodland
13	1342	W	Unknown	Ancient Semi Natural Woodland
14A	1409	NW	Unknown	Ancient Semi Natural Woodland
15	1494	SW	Unknown	Restored Ancient Woodland Site
Not shown	1506	W	Unknown	Restored Ancient Woodland Site
Not shown	1680	W	Unknown	Ancient Semi Natural Woodland
Not shown	1697	NW	Unknown	Ancient Semi Natural Woodland
Not shown	1920	W	Unknown	Ancient Semi Natural Woodland
Not shown	1958	W	Unknown	Restored Ancient Woodland Site

## 8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

5

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
7	1110	NW	CWM TALWG WOODLANDS	Natural Resources Wales
8A	1358	NW	CWM TALWG WOODLANDS	Natural Resources Wales