

ID	Location	Address	Details	
F	428m SE	PANT DEDWYDD, DOLYDD LANE, CEFN MAWR, Wrexham, LL14 3NF	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: RP3923GX Permit Version: 1 Receiving Water: TREFY NANT BROOK	Status: Effective Issue date: 07/03/2012 Effective Date: 07/03/2012 Revocation Date: -
I	474m SE	CEFN MAWR - MONSANTO PLC RUABO	Effluent Type: UNSPECIFIED Permit Number: CM0041901 Permit Version: 1 Receiving Water: TREFYNANT BROOK	Status: REVOKED AND REPLACED BY IPC AUTHORISATION Issue date: 24/05/1967 Effective Date: 24/05/1967 Revocation Date: 16/05/1995

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0
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Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	0
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Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m	0
---------------------	---

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m

1

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 59**

ID	Location	Name	Status	Receiving Water	Authorised Substances
C	308m E	Flexsys Rubber Chemicals Ltd, Ruabon Works	Not Active	-	Iron, Zinc, Toluene, Xylene

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

18

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 59**

ID	Location	Details	
9	242m S	Incident Date: 03/12/2002 Incident Identification: 124435 Pollutant: Sewage Materials Pollutant Description: Final Effluent	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	297m S	Incident Date: 29/01/2003 Incident Identification: 133963 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
B	306m S	Incident Date: 30/07/2002 Incident Identification: 95647 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
C	316m NE	Incident Date: 12/03/2003 Incident Identification: 142687 Pollutant: Inorganic Chemicals/Products Pollutant Description: Other Inorganic Chemical or Product	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
C	316m NE	Incident Date: 22/09/2002 Incident Identification: 109670 Pollutant: Organic Chemicals/Products Pollutant Description: Phenols and Creosote	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)



ID	Location	Details	
B	325m S	Incident Date: 08/05/2001 Incident Identification: 4870 Pollutant: Other Pollutant Pollutant Description: Natural Ochre	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
D	343m SW	Incident Date: 29/08/2002 Incident Identification: 104017 Pollutant: Sewage Materials Pollutant Description: Grey Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
12	347m NW	Incident Date: 18/06/2015 Incident Identification: 1346512 Pollutant: Contaminated Water Pollutant Description: Suspended Solids	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
E	373m E	Incident Date: 01/09/2014 Incident Identification: 1273188 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
F	392m SE	Incident Date: 20/05/2014 Incident Identification: 1237259 Pollutant: Contaminated Water Pollutant Description: Suspended Solids	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
E	396m SE	Incident Date: 22/09/2002 Incident Identification: 109679 Pollutant: Contaminated Water Pollutant Description: Chemically Contaminated Run-Off	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
13	400m W	Incident Date: 24/05/2015 Incident Identification: 1339599 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	421m SE	Incident Date: 07/09/2002 Incident Identification: 106093 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	421m SE	Incident Date: 07/09/2002 Incident Identification: 106093 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	429m SE	Incident Date: 17/06/2001 Incident Identification: 9738 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)



ID	Location	Details	
H	432m E	Incident Date: 08/02/2003 Incident Identification: 135716 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
H	447m SE	Incident Date: 30/04/2013 Incident Identification: 1107984 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
I	462m SE	Incident Date: 12/03/2003 Incident Identification: 142565 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m

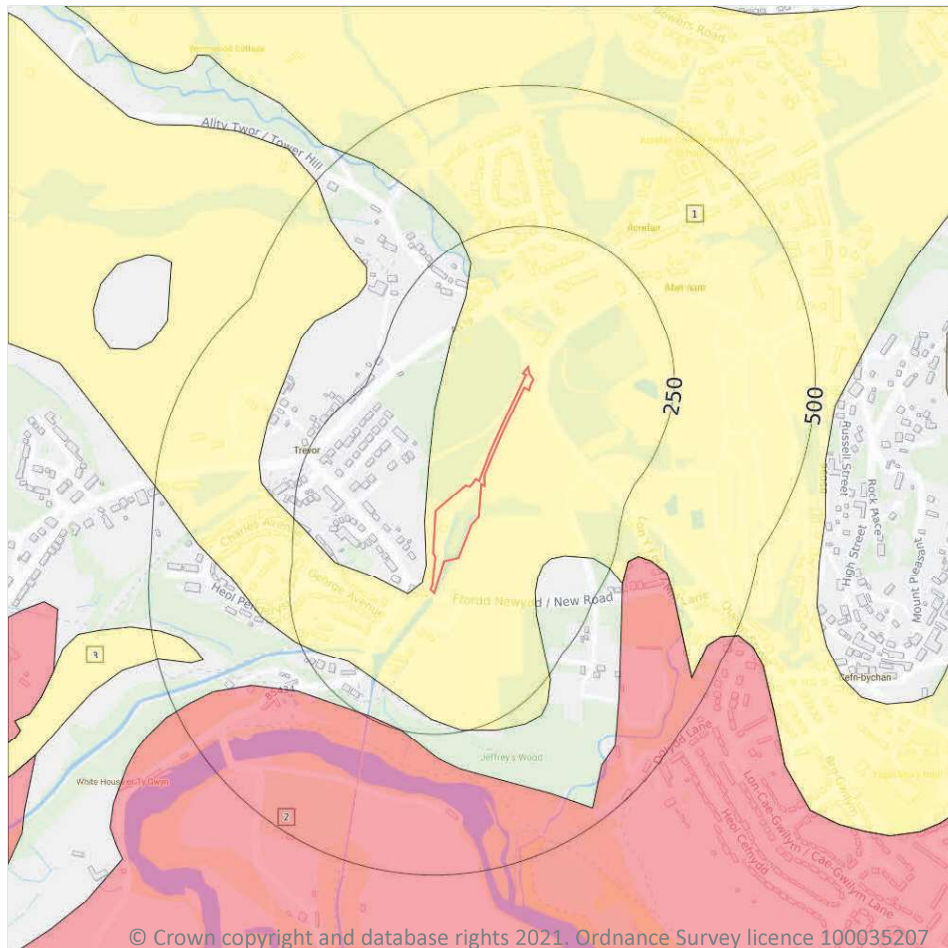
0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

3

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 82**

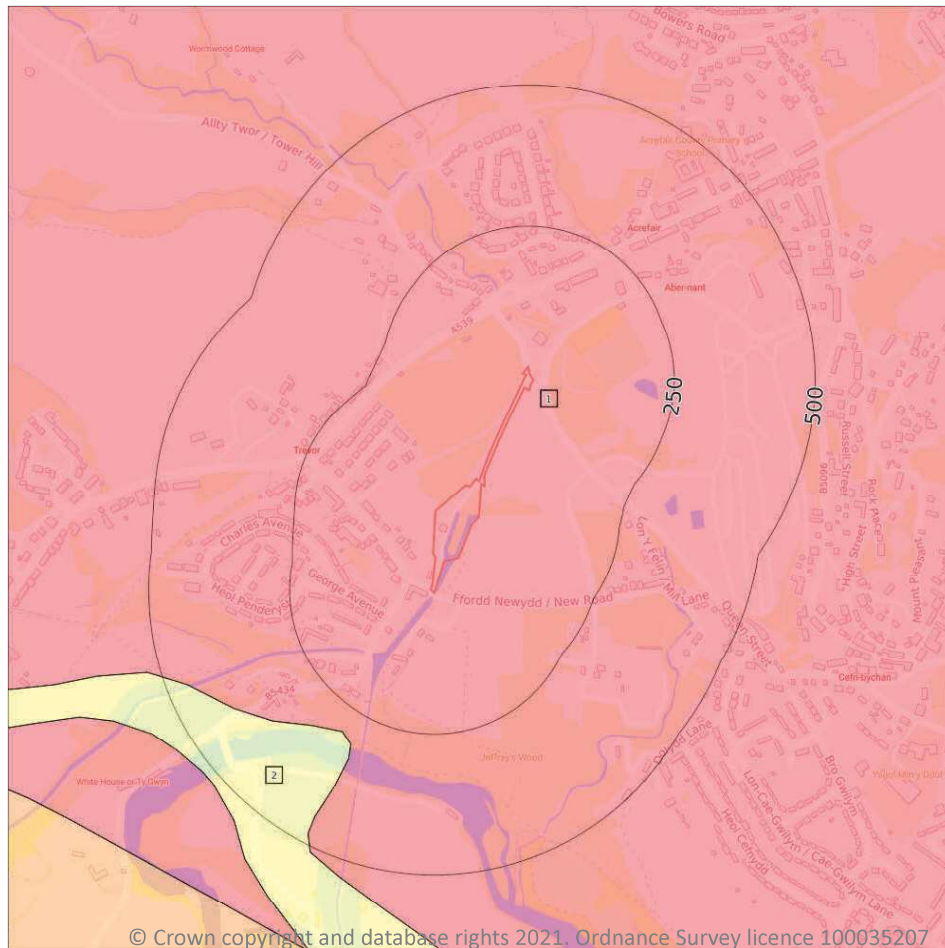
ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	246m SW	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

ID	Location	Designation	Description
3	422m W	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

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 84**

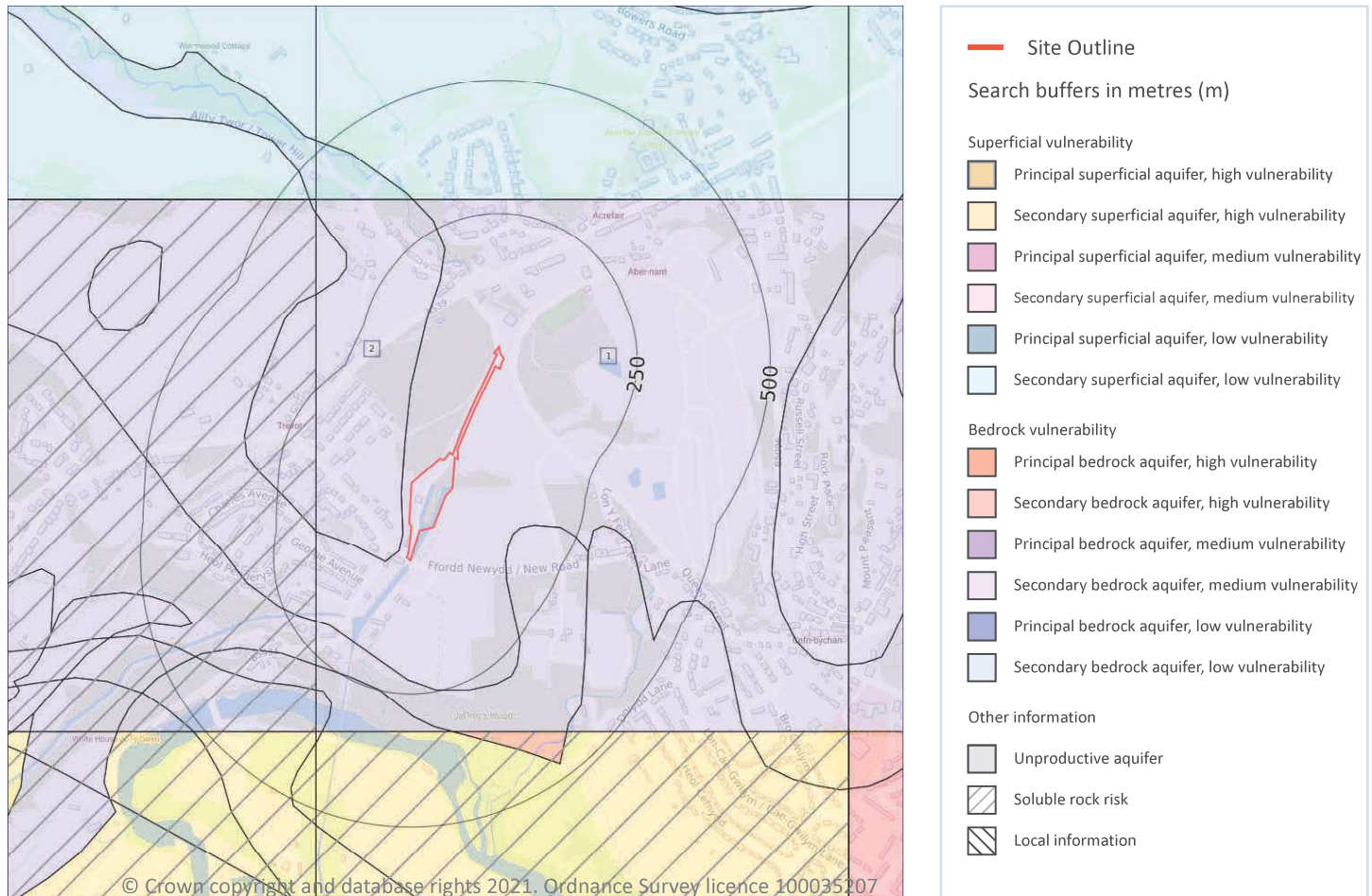
ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	295m SW	Secondary (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



This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 86**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
2	12m W	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

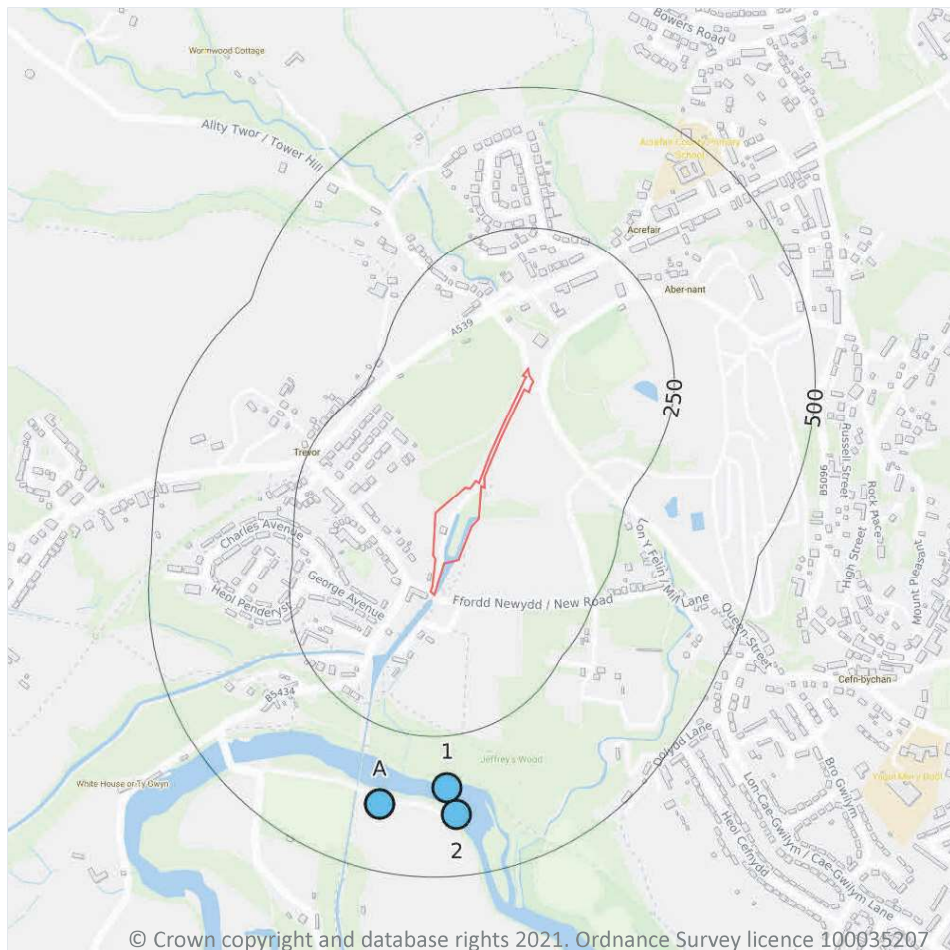
Records on site

0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

1

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 88**

ID	Location	Details	
-	1744m N	Status: Historical Licence No: 24/67/5/0009 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: WELL Data Type: Point Name: Philips Easting: 326830 Northing: 344390	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 09/08/1966 Expiry Date: - Issue No: 100 Version Start Date: 09/08/1966 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	9
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Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 88**

ID	Location	Details	
1	342m S	Status: Historical Licence No: 24/67/5/0017 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: EAW Surface Water Point: RIVER DEE AT PONTCYSYLLTE Data Type: Point Name: Solutia UK Limited Easting: 327200 Northing: 341980	Annual Volume (m ³): 2,727,600 Max Daily Volume (m ³): 7728.2 Original Application No: - Original Start Date: 26/06/1967 Expiry Date: - Issue No: 102 Version Start Date: 21/12/2009 Version End Date: -
A	384m S	Status: Historical Licence No: 24/67/5/0057 Details: Transfer between Sources (Pre Water Act 2003) Direct Source: EAW Surface Water Point: RIVER DEE AT PONTCYSYLLTE Data Type: Point Name: United Utilities Water Limited Easting: 327080 Northing: 341950	Annual Volume (m ³): 18302196 Max Daily Volume (m ³): 50006 Original Application No: - Original Start Date: 27/06/1978 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2002 Version End Date: -



ID	Location	Details	
A	384m S	Status: Historical Licence No: 24/67/5/0057 Details: Potable Water Supply - Storage Direct Source: EAW Surface Water Point: RIVER DEE AT PONTCYSYLLTE Data Type: Point Name: United Utilities Water Limited Easting: 327080 Northing: 341950	Annual Volume (m ³): 18,302,196 Max Daily Volume (m ³): 50006 Original Application No: - Original Start Date: 27/06/1978 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
2	391m S	Status: Historical Licence No: 24/67/5/0057 Details: Transfer Between Sources (Pre Water Act 2003) Direct Source: EAW Surface Water Point: RIVER DEE AT PONTCYSYLLTE Data Type: Point Name: United Utilities Water Limited Easting: 327217 Northing: 341932	Annual Volume (m ³): 18,302,196 Max Daily Volume (m ³): 50006 Original Application No: - Original Start Date: 27/06/1978 Expiry Date: - Issue No: 104 Version Start Date: 12/11/2014 Version End Date: -
-	1037m W	Status: Historical Licence No: 24/67/5/0004 Details: Potable Water Supply - Direct Direct Source: EAW Surface Water Point: OEROG SPRINGS, TREVOR Data Type: Point Name: Dee Valley Water Plc Easting: 326160 Northing: 342090	Annual Volume (m ³): 1,163,776 Max Daily Volume (m ³): 341 Original Application No: - Original Start Date: 17/10/2001 Expiry Date: - Issue No: 101 Version Start Date: 17/10/2001 Version End Date: -
-	1047m W	Status: Active Licence No: 24/67/5/0004 Details: Pottable Water Supply - Direct - Medium Direct Source: Oerog Springs Point: - Data Type: Point Name: - Easting: 326160 Northing: 342050	Annual Volume (m ³): 1,163,776 Max Daily Volume (m ³): 4,080 Original Application No: - Original Start Date: 2018-12-05 00:00:00.0000000 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1254m NW	Status: Historical Licence No: 24/67/5/0002 Details: Potable Water Supply - Direct Direct Source: EAW Surface Water Point: TREFNANT BROOK Data Type: Point Name: Dee Valley Water Plc Easting: 326320 Northing: 343450	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -



ID	Location	Details	
-	1562m NW	Status: Historical Licence No: 24/67/5/0027 Details: General Farming & Domestic Direct Source: EAW Surface Water Point: SPRING Data Type: Point Name: Trevor Tower Estate Easting: 325810 Northing: 343220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 25/07/1973 Version End Date: -
-	1911m W	Status: Historical Licence No: 24/67/5/0026 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: EAW Surface Water Point: SPRING Data Type: Point Name: Trevor Tower Estate Easting: 325260 Northing: 342270	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 23/10/1967 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m

5

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 88**

ID	Location	Details	
A	384m S	Status: Historical Licence No: 24/67/5/0057 Details: Potable Water Supply - Storage Direct Source: EAW Surface Water Point: RIVER DEE AT PONTCYSYLLTE Data Type: Point Name: United Utilities Water Limited Easting: 327080 Northing: 341950	Annual Volume (m ³): 18,302,196 Max Daily Volume (m ³): 50006 Original Application No: - Original Start Date: 27/06/1978 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -



ID	Location	Details	
-	1037m W	Status: Historical Licence No: 24/67/5/0004 Details: Potable Water Supply - Direct Direct Source: EAW Surface Water Point: OEROG SPRINGS, TREVOR Data Type: Point Name: Dee Valley Water Plc Easting: 326160 Northing: 342090	Annual Volume (m ³): 1,163,776 Max Daily Volume (m ³): 341 Original Application No: - Original Start Date: 17/10/2001 Expiry Date: - Issue No: 101 Version Start Date: 17/10/2001 Version End Date: -
-	1047m W	Status: Active Licence No: 24/67/5/0004 Details: Pottable Water Supply - Direct - Medium Direct Source: Oerog Springs Point: - Data Type: Point Name: - Easting: 326160 Northing: 342050	Annual Volume (m ³): 1,163,776 Max Daily Volume (m ³): 4,080 Original Application No: - Original Start Date: 2018-12-05 00:00:00.0000000 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1254m NW	Status: Historical Licence No: 24/67/5/0002 Details: Potable Water Supply - Direct Direct Source: EAW Surface Water Point: TREFNANT BROOK Data Type: Point Name: Dee Valley Water Plc Easting: 326320 Northing: 343450	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -
-	1911m W	Status: Historical Licence No: 24/67/5/0026 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: EAW Surface Water Point: SPRING Data Type: Point Name: Trevor Tower Estate Easting: 325260 Northing: 342270	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 23/10/1967 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	0
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.



5.10 Source Protection Zones (confined aquifer)

Records within 500m

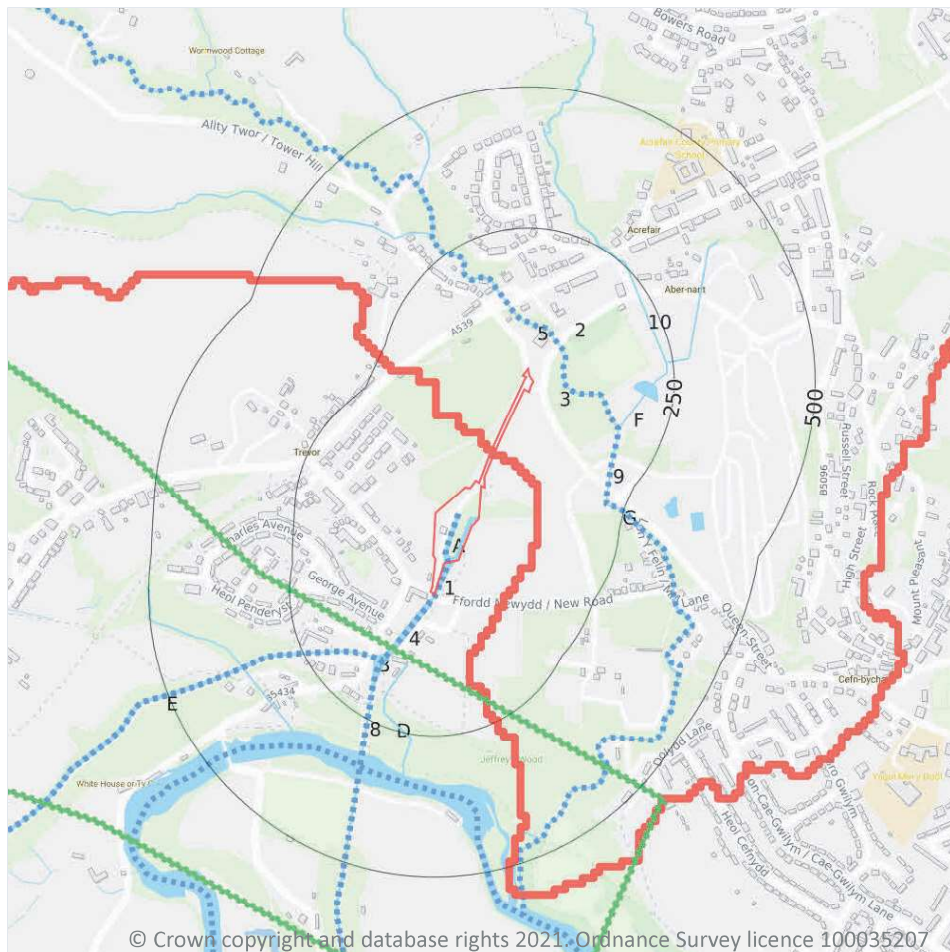
0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m

19

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 94**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	On site	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Llangollen Canal



ID	Location	Type of water feature	Ground level	Permanence	Name
A	On site	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Llangollen Canal
A	On site	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Llangollen Canal
4	6m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Llangollen Canal
5	54m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Tref-y-nant Brook
D	130m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
8	151m SW	Canal. A manmade watercourse for inland navigation.	Suspended or elevated	Watercourse contains water year round (in normal circumstances)	Llangollen Canal
B	151m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Llangollen Canal
B	156m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Llangollen Canal
E	158m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Llangollen Canal
9	171m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Tref-y-nant Brook
F	171m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	198m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	213m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
F	216m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	222m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Tref-y-nant Brook
10	230m NE	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
F	237m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	238m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	8
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Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 94**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	2
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The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 94**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	On site	River WB catchment	Trefnant Brook	GB111067052010	Dee Middle Ceiriog to Alwen	Dee
B	On site	River WB catchment	Dee - Ceiriog to Alwen	GB111067052060	Dee Middle Ceiriog to Alwen	Dee

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	4
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Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site.

Features are displayed on the Hydrology map on **page 94**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
C	On site	Canal	Llangollen Canal	GB70910082	Good	Good	Good	2016
C	On site	Canal	Llangollen Canal	GB70910082				2016
6	54m E	River	Trefnant Brook	GB111067052010	Moderate	Good	Moderate	2016
18	331m SW	River	Dee - Ceiriog to Alwen	GB111067052060	Moderate	Fail	Good	2016

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1
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Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place.

Features are displayed on the Hydrology map on **page 94**

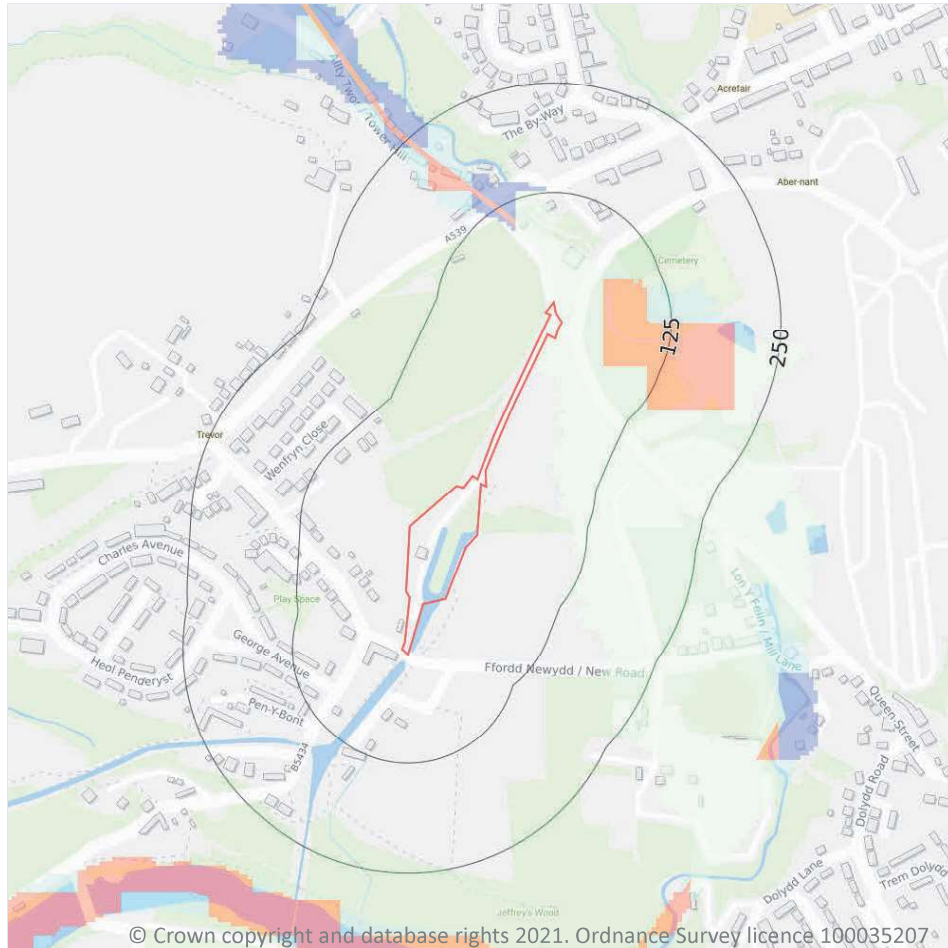
ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
3	On site	Dee Silurian/Ordovician	GB41102G200200	Good	Good	Good	2016



This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding



- Site Outline
- Search buffers in metres (m)
- Environment Agency river and coastal flooding:
 - High
 - Medium
 - Low
 - Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m

2

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on **page 99**

Distance	RoFRaS flood risk
On site	Very Low
0 - 50m	High



This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m

0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

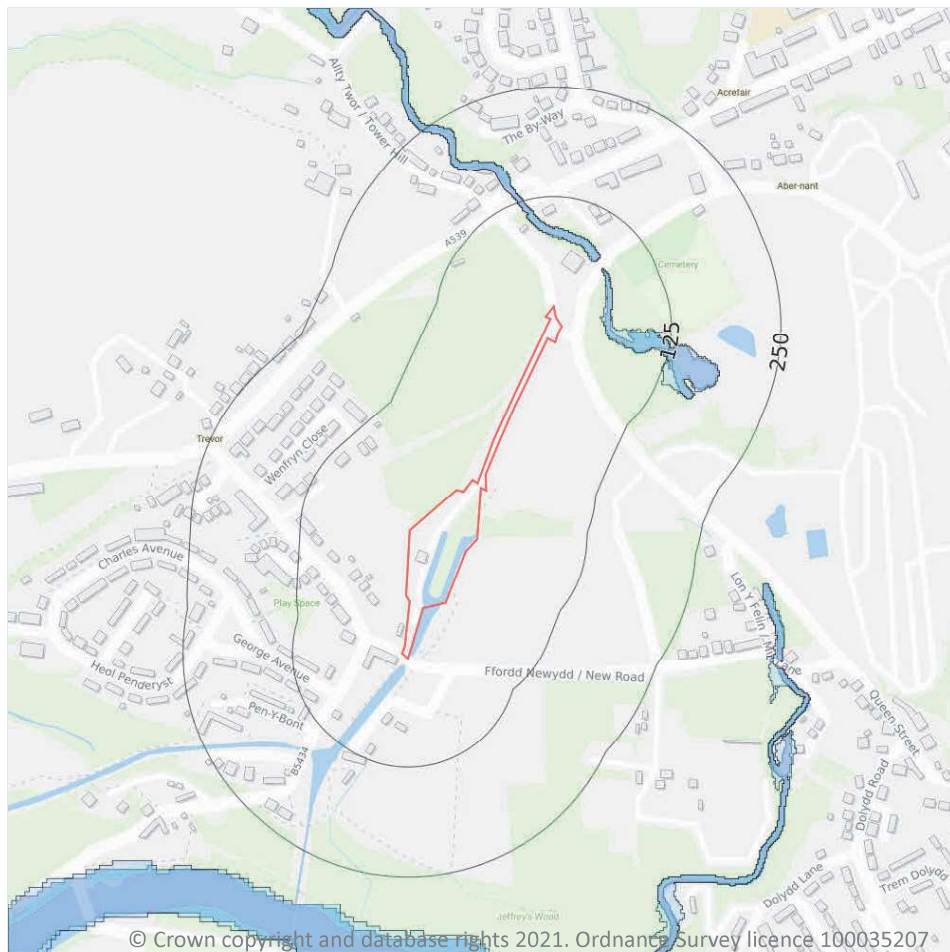
0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

Features are displayed on the River and coastal flooding map on **page 99**

Location	Type
45m E	Zone 2 - (Fluvial /Tidal Models)

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 99**

Location	Type
48m E	Zone 3 - (Fluvial Models)

This data is sourced from the Environment Agency and Natural Resources Wales.

