Scottish and Southern Electricity Networks (SSEN)

KINTORE TO TEALING 400KV OHL – SECTION B

Geo-environmental Preliminary Risk Assessment

UK0040111.5101 /005
JULY 2025

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EXECUTIVE SUMMARY

WSP UK Ltd (WSP) was commissioned by SSE (the 'Client') to undertake a Phase 1 Geo-environmental Preliminary Risk Assessment (PRA) for Section B of the proposed Kintore to Tealing 400 kV Overhead Line (OHL) located between Glamis and Balrownie (the 'Study Area')..

The principal aim of this assessment has been to identify potential risks from soil and groundwater contamination that may affect the proposed development.

The report highlights environmental considerations, predominantly with respect to ground conditions, and was requested to support construction of Over Head Line (OHL) at site.

Study Findings

The majority of Study Area is presently within a predominantly rural / agricultural setting with major roads (Redfort Road (A926) and Whig Street (B957) and minor roads crossing the Study Area.

Historical maps indicate that the most part of the Study Area has been undeveloped since the first available map edition (1861), with some localised historical industrial land uses on and near the Study Area.

The Study Area is underlain by Lacustrine deposits, Glaciofluvial deposits, Alluvium and Devensian Till. Made Ground is considered likely to be present underneath major and minor roads which transect the Study Area. The bedrock aquifer is classified as a moderately productive aquifer.

Onsite surface water features include the Noran water (west of the Vayne moor Wood) and the River South Esk(central part of the Study Area), which are classified as moderate and good overall water quality respectively by SEPA in 2023.

The preliminary risk assessment identifies a Low risk to human health, with the risk to the water environment considered Low. The risk to buildings and services is also considered to be Low.

Conclusions

The proposed presence of hardstanding (tower bases) reduces the probability of contemporary user exposures at a material frequency should contamination (e.g. heavy metals, TPH, PAH and asbestos) exist in these areas.

Based on the information contained within this report, it is the opinion of WSP that the Study Area represents a **LOW risk** with respect to contaminated land.

1 INTRODUCTION

1.1 AUTHORISATION

WSP UK Ltd (WSP) was commissioned by SSE (the 'Client') to undertake a Phase 1 Geo-environmental Preliminary Risk Assessment (PRA) for Section B of the proposed Kintore to Tealing 400 kV Overhead Line (OHL) located between Glamis and Balrownie (the 'Study Area')..

The Study Area boundary follows a linear corridor crossing various geographical features including woodlands, hills, burns (streams) and settlements, running from north of Drumgley to west of Little Brechin Wood.

1.2 PROJECT BACKGROUND & CONTEXT.

WSP understands that the Study Area is a portion of the new Kintore-Tealing 400kV Over Head Line (OHL) connection (the 'proposed development'). The principal aim of this assessment is to assess potential geo-environmental risks associated with the proposed development and provide preliminary commentary on the ground related development constraints for the Study Area in the context of the proposed development.

The Study Area location and proposed development plans are presented in Figure 1 and 2 within **Appendix A**.

1.3 SOURCES OF INFORMATION

This report has been prepared using the information sources as listed below:

- BGS geology viewer accessed on 24 February 2025, available online http://mapapps2.bgs.ac.uk/geoindex/home.html;
- Groundsure report reference GS-4SO-WBL-TJV-8CE and GS-P6K-HON-N3I-7KN (historical maps) dated 17 February 2025 (presented as **Appendix B.1**);
- Mining Remediation Authority Map viewer accessed on 24 February 2025 through https://datamine-cauk.hub.arcgis.com/;
- Online environmental data available on the Scotland Environment website accessed 24 February 2025 Map | Scotland's environment web ;
- Scottish Environment Protection Agency (SEPA) Water Environment Hub accessed on 24 February 2025 through Water Classification Hub (sepa.org.uk);
- UK Radon interactive map viewer accessed on 25 February 2025 http://www.ukradon.org/information/ukmaps;
- Zetica UXO Assessment Risk Maps accessed on 27 February 2025 https://zeticauxo.com/downloads-and-resources/risk-maps/ (**Appendix B.2**);
- Legislative Background (**Appendix C**); and
- Contaminated Land Risk Assessment CIRIA 552 (Tables included in **Appendix D**).

1.4 LEGISLATIVE CONTEXT AND GUIDANCE

The assessment was undertaken in the legislative context of:

- Part 2A of The Environmental Protection Act (1990).
- National Planning Policy Framework (NPPF) (Chapter 9C).

The following good practice and statutory guidance was considered, and the assessment was undertaken in general accordance with:

- Environment Agency 'Land Contamination Risk Management (LCRM)', 2023.
- CIRIA 'Assessing Risks Posed by Hazardous Ground Gases to Buildings', C665 (2007).
- British Standard 'Investigation of Potentially Contaminated Sites – Code of Practice', BS EN 10175:2011 + A2: 2017.
- Defra 'Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance', PB13735 (2012).
- Scottish Government Planning Advice Note 33 (PAN 33).

1.5 LIMITATIONS

The report is addressed to and may be relied upon by SSEN, as "the Client" within the meaning given to that phrase within the agreement and subject to the terms and conditions contained therein.

This report has been completed with regard to generally accepted consulting practices and may not be relied upon by any other party without the explicit written agreement of WSP. No other third-party warranty, expressed or implied, is made as to the professional advice included in this report. This report must be used in its entirety.

Unless WSP has actual knowledge to the contrary, WSP has assumed the correctness and completeness of third-party information supplied and shall have no liability in respect of any inaccuracy, defect or omission in any information or materials provided, anecdotally or otherwise, by the Client or any other third party to WSP. WSP does not assume any liability for misrepresentation of information or for items not visible, accessible, present or supplied at the time of the study.

The general limitations to the nature of the assessment are outlined in **Appendix E**.

2 ENVIRONMENTAL SETTING

2.1 STUDY AREA DETAILS

Pertinent Study Area details are summarised in Table 2-1. Study Area location and proposed development plans are presented in Figures 1 and 2, included in **Appendix A**.

Table 2-1 – Study Area Details

Aspect	Details
Study Area address	Study Area centered at Whig Street, Angus, Scotland, DD8 3SF
National Grid Reference	Easting: 347005, Northing: 757623 (approximate Study Area centre)
Study Area Setting and Surrounding Area	The Study Area is set within a predominantly rural / agricultural setting.
Study Area Size (approximate)	495 Hectares

2.2 STUDY AREA DESCRIPTION

The Study Area boundary follows a linear corridor from north of Drumgley to west of Little Brechin Wood, crossing various geographical features such as Forest Muir Wood, Redfort Wood and Weiris Woods. Key water bodies along the route include the River South Esk, the Noran Water and several smaller burns. The Study Area also intersects major roads like Redfort Road (A926) and Whig Street (B957).

2.2.1 OFF-SITE

The Study Area is bound by agricultural fields to the north, south, east and west.

2.3 PUBLISHED GEOLOGY

The following geological sequence is anticipated on and in the vicinity of the Study Area based on British Geological Survey (BGS) 1:50,000 scale (Sheet No.57W - Forfar, Solid and Drift Edition, 1:50:000) geological maps and the Groundsure report.

Table 2-2 – Summary of Published Geology

Geological Unit	Estimated Thickness (based on historical boreholes)	Location along the route	Description
Made Ground			
Worked Ground (Undivided)	Unknown	The is likely underlain by Made Ground where several roads cross the Study Area at various locations.	
Made Ground (Undivided)	Unknown		
Superficial			
Alluvium	Unknown	The mapping indicates that this superficial deposit is present in the northeastern most part of the Study Area, near Mill of Blackhall. It is also found between Tannadice and Newmill of Craigeasside Cottages. Additionally, a small patch is located near Burnside the Meadows and Dragon Hall Farm.	Soft to firm consolidated, compressible silty clay.
Till, Devensian	Unknown	The mapping indicates that this superficial deposit is present across most of the Study Area near Lochty Council Houses, extending between Redford Wood and Noran Water. It is also found near Broom Farm Cottage, extending to Tannadice. Additionally, it appears between Quarry Hill and Drumgley, although there are some patches of different superficial deposits in between.	Diamicton
Glaciofluvial deposit	Unknown	The mapping indicates that this superficial deposit is present between Duns Wood and Redford Wood. It is also found south of Noran Water, extending to Fidlerswell. Additionally, it appears near Over Bow Farm Cottages and East Mosside of Ballinshoe, as well as east of Gairie Burn.	Sand and gravel, locally with lenses of silt, clay or organic material.
Lacustrine deposits	Unknown	The mapping indicates that this superficial deposit is present at southwestern most part of the Study Area, near Gairie Burn.	Includes fine-grained sediments (i.e. clay and silt), commonly laminated, and can contain thin layers of organic material or sand.
Bedrock			

Geological Unit	Estimated Thickness (based on historical boreholes)	Location along the route	Description
Cromlix Mudstone Formation	Unknown	The mapping indicates this bedrock deposits is present at northeastern most part of the Study Area, near Mill of Blackhall and till Noran water	Characteristically soft, bright red to dull brownish-red, maroon or purplish brown, fine-grained silty sandstones, sandy siltstones, siltstones and mudstones.
Scone Sandstone Formation	Unknown	The mapping indicates this bedrock deposits is present from southwestern region of Noran water and extend till last southwestern region of the Study Area, near Gairie Burn.	Purple-brown and purple-grey, fine- to coarse-grained, commonly cross-bedded sandstones.

BGS Borehole Logs

One BGS borehole log (BGS website: www.bgs.ac.uk/data/boreholescans) is recorded on the Study Area (in the southern section near Padanaram). (BGS website: NO45SW3)

The geology recorded from the borehole is summarised as below:

Table 2-3 – Summary of Borehole Geology

Borehole ID	Geological Unit	Thickness in m (based on historical boreholes)	Description
NO45SW3 (On site)	Till/Alluvium	2.0m	Clay and Sand
	Scone Sandstone Formation	48.0m	Conglomerate and Sandstone

2.4 MINING

Reference to the Mining Remediation Authority (MRA) Interactive Map Viewer online indicated that the Study Area does not lie within a Coal Mining Reporting Area.

2.5 GROUNDWATER QUALITY

In accordance with the Water Framework Directive, the Scottish Environment Protection Agency (SEPA) maintains its quality classification of the water environment following River Basin Management Planning (RBMP). This information is available on SEPA's Water Environment Hub (https://www.sepa.org.uk/data-visualisation/water-classification-hub/). The following groundwater quality information is available for the Study Area:

Table 2-2 – Groundwater Quality Summary

Waterbody Name	Type	Local Authority	Overall Classification	Comments
Finavon (ID: 150615)	Bedrock	Angus Council	Good	2023 Classification
Strathmore (ID: 150681)	Bedrock	Angus, Perth and Kinross	Poor	2023 Classification

Drinking Water Protection Zones are not defined in Scotland. Following SEPA's position, all Scotland's groundwater bodies are designated as Drinking Water Protected Areas (DWPAs) and therefore their associated groundwater resource potential must be protected.

2.6 GROUNDWATER VULNERABILITY

The BGS Groundwater Vulnerability Map of Scotland, scale 1:625,000 (1988) reports vulnerability in terms of the thickness of the overlying superficial deposits. Groundsure's digitised mapping of this reference reports the geological classifications of the Study Area as a moderately productive aquifer (Strathmore Group and Arbuthnott-Garvock Group), in which flow is virtually all through fractures and other discontinuities.

Additionally, SEPA's Water Environment Hub (https://map.environment.gov.scot/sewebmap/) also provides the following contemporary 'Aquifer Classification' for the bedrock aquifer.

Table 2-3 – Groundwater Vulnerability Summary

Rock Unit	Character	Flow Mechanism	Summary
Strathmore Group	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas, locally yields up to 12 L/s in parts of groundwater.
Arbuthnott-Garvock Group	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas, locally yields moderate amounts of groundwater.

2.7 WATER ABSTRACTIONS

WSP contacted Angus Council and SEPA via email on 24th February 2025 regarding water abstraction records held relating to the Study Area. At the time of writing, Angus Council and SEPA has responded on 19th March 2025 and 20th March 2025 respectively. The information is summarized as below.

- A total of Seven agriculture (irrigation – mobile plant and fixed intake) have been identified within a 500m radius of the Study Area.

2.8 HYDROLOGY

According to the Groundsure report, there are two inland rivers present in the Study Area, described as following:

- Noran water (ID: 5805) passes through the Study Area, near west of the Vayne moor Wood is classified to have an overall water quality of 'Moderate' in the year 2023 according to SEPA's Water Classification Hub.
- River South Esk (ID: 5799) flowing across central part of the Study Area is classified to have an overall water quality of 'Good' in the year 2023 according to SEPA's Water Classification Hub.

2.9 FLOODING

According to the Groundsure Report, the Study Area has greater than 1.0m (1 in 30 year) risk of flooding risk from river and surface flooding. The risk from the coastal is considered to be negligible within the Study Area. The risk from groundwater flooding is considered to be moderate for the Study Area.

2.10 SENSITIVE SURROUNDING LAND USES

The Groundsure report indicates that environmentally designated sensitive land uses are recorded on site; however, the following record of an environmental designation is identified within 500m of the Study Area boundary:

Table 2-4 – Sensitive Surrounding Land Uses

Type	Description
Special Areas of Conservation (SAC)	River South Esk is present in Study Area.
Listed Buildings	Lochty Free Church, Angus is present near east of the Lochty Wood and Blackhall Cornmill, Angus is present near south of the Buttery Burn.
Designated ancient woodland	Oak/redford Woods, Duns Wood, Boggie Wood and Unknown Woods are recorded to be present on site. Coe Wood, Forestmuir Wood, Drumcuthlaw Wood, Keeper's/Belliehill Woods, Birch Wood are present within 500m of Study Area.
Scheduled Ancient Monuments	Baldoukie, souterrains 250m northeast of, Law of Baldoukie, barrow 140m east of Baldoukie Farm and Wellford, enclose 350m west of.

2.11 ENVIRONMENTAL SENSITIVITY

Overall, the Study Area setting is considered to be of moderate sensitivity due to the following:

- Presence of 'moderate' quality surface water feature within 250m;
- Presence of a 'moderate to good' quality underlying the Study Area;
- Presence of residential land uses within 250m; and,
- Presence of designated SAC, ancient woodland and schedule ancient monuments on and off site.

3 STUDY AREA AND SURROUNDING AREA HISTORY

A review of historical Ordnance Survey (OS) maps has been undertaken to identify potential former sources of contamination and sensitive receptors. The historical OS maps reviewed are provided within the Groundsure report in **Appendix C.1,** and pertinent findings are summarised below.

3.1 ONSITE

3.1.1 ONSITE HISTORICAL MAPPING

The earliest available mapping (1861) shows that most of the Study Area was undeveloped land.

- A railway line known as the Caledonian Railway (both double and single track) intersected the Study Area near the north of Drumgley (1861). It remained unchanged until the 1990 map,
- An unnamed road had been identified running across the Study Area, near Mosside Crossroads (1861) remains unchanged according to the latest map.
- An unnamed railway line has been identified running across the Study Area, near Strathmore (1901). It remained unchanged until the 1990 map, after which the railway line was dismantled.
- An Unspecified Old Quarry on the Study Area, near east of the Forestmuir Wood (1901) and it was disused on the 1981 edition map.
- An unnamed road had been identified running across the Study Area, near northwest of the Tannadice (1861), which remained unchanged according to the latest map.
- Redfort Road (A926) intersects the Study Area, near northeast of the Padanaram (1900-1901).
- Gravel pit on the Study Area, south of the Noran water river (1900-1901) remained unchanged till 1927 map, after which it was disused.
- The Study Area remains undeveloped until present.

3.1.2 ONSITE REGULATORY INFORMATION

A review of the Groundsure report for the Study Area has reported the following potentially contaminative
land uses (some of which are not identified on historical mapping):

- Unspecified pit on site circa 1861,
- Gravel pit on site circa 1900-1927,
- Boat House on site circa 1901
- Railway siding on site circa 1927-1955,
- Unspecified Old Quarry on site circa 1901, 1900-1927 and 1955; and
- Cutting located on site circa 1955

3.2 OFFSITE

3.2.1 OFFSITE HISTORICAL MAPPING

Offsite features identified are listed below with their distance located from the site:

- Kirriemuir Junction located approximately 250m north of the site, near the north of Drumgley (1861). It remained unchanged until the 1990 map, after which the railway line was dismantled.
- Glamis Tile Work has been identified approximately 500m to the southwest of the site, near east of Haughs of Cossans (1861).

- Plash Mill, Corn Mill, and New Mill of Craigeassie were all located approximately 50m east of the site, near Craigeassie. Additionally, Corn Mill, Plash Mill, and Sawmill were situated about 500 meters east of the site, near Murthill (1861). The name was changed to Glen Coull Distillery in 1927 and later to Glencoull Mills in 1955.
- Corn Mill located approximately 400m north of the site, near Milton of Balhall (1863) and it was changed into Sawmill (1927).
- Two Corn Mill were located approximately 200m north and 750m east of the site, near Blackhall (1863), and it were disused on the 2001 edition map.
- Cruick water flowing adjacent to the north of the site (1863) and remains unchanged according to latest map.
- Old Park located approximately adjacent to the east of the site, near south of the Noran water (1861-1863).
- Ballindarg Burn passes through approximately 150m to the west of the site, near southernmost part of the site (1861).
- Scottish Northeastern railway line passes approximately 300m south of the site, near north of the Easter Drumgley (1861) and no longer visible on the 1990 edition map.
- Old Clay pit has been identified approximately 500m of southwest of the site, near east of Haughs of Cossans (1900-1901). It remained unchanged till 1974 map, after which it was disused.
- The school, located approximately 50m north of the site and just west of Redfort Road (A926), was renamed Padanaram Primary School in the 1990 edition map. In the 2010 edition map, its name was changed again to Schoolhouse.
- Two Gravel pits are located approximately 250m and 200m from the site, near Forest Muir Wood (1901), and it was not seen on the 1927 edition map.
- Gas Distribution Station located approximately 400m southwest of the site, near Forest Muir Wood (1990) but now its name has been changed into Kirriemuir Gas Compressor Station.
- Quarry hill located approximately 300m east of the site, near Whig Street (B957) (1861) and present until the 2025 map.
- Justinhaugh Station passes through approximately 750m east of the site, near Justinhaugh (1901). It remained unchanged until the 1981-1982 edition map, after which the railway line was dismantled.
- Gravel pit located adjacent to the east, near the north of the Wellford (1900-1901).
- The sewage pump and gravel pit were both located approximately 450m northwest of the site, near Noranside (1927). However, the gravel pit was marked as disused on the 1971 edition map, and the sewage pump was no longer visible on the 2025 edition map.
- Old quarry located approximately 600m north of the site, near Milton of Balhall (1901) and no longer visible on the 1927 edition map.
- Gravel pit adjacent to north of the site, near Balmadity (1927) and no longer visible on the 1971-1972 edition map.

3.2.2 OFFSITE REGULATORY INFORMATION

A review of the Groundsure report for the site has reported the following potentially contaminative land uses (some of which are not identified on historical mapping):

- Unspecified Quarries located:

- 5m southwest circa 1861,
- 11m southwest circa 1955,
- 258m northeast circa 1955,
- 332m northwest circa 1901, and;
- 332m northwest circa 1927 – 1955.

- Multiple Gravel Pits were recorded across different locations including:
  - 47m northeast circa 1901,
  - 91m northeast circa 1927 – 1955,
  - 122m northeast circa 1900 – 1927,
  - 162m northeast circa 1901,
  - 188m southwest circa 1901,
  - 198m southwest circa 1901, and;
  - 320m northeast circa 1901.
- Multiple Unspecified Pits were noted including:
  - 44m northeast circa 1863;
  - 127m northeast circa 1971;
  - 180m northeast circa 1863;
  - 230m northeast circa 1927;
  - 235m northeast circa 1955;
  - 313m north circa 1862; and
  - 318m north circa 1927.
- Multiple Smithies were noted including:
  - 126m southwest circa 1861 – 1901;
  - 268m southwest circa 1969 – 1990;
  - 323m southwest circa 1900, and;
  - 347m southwest circa 1861.
- Several Mills were commonly found in the area, including:
  - 32m west circa 1861,
  - 37m west circa 1901 – 1927,
  - 58m west circa 1861,
  - 191m northeast circa 1955,
  - 195m northeast circa 1863 – 1927,
  - 284m northwest circa 1861,
  - 295m northeast circa 1955, and;
  - 354m northeast circa 1863 – 1901.
- Railway Sidings and building were noted including:
  - 112m southwest circa 1955,
  - 397m southwest circa 1955,
  - 200m southwest circa 1955, and;
  - 204m southwest circa 1861 – 1927.

- Multiple Cuttings were commonly found, including:
  - 229m southwest circa 1861,
  - 247m southwest circa 1955,
  - 248m southwest circa 1900 – 1927,
  - 251m southwest circa 1861,
  - 292m southwest circa 1927 – 1955,
  - 345m southwest circa 1900 – 1927,
  - 348m southwest circa 1861, and;
  - 349m southwest circa 1955.
- Multiple Unspecified Tanks were noted as:
  - 117m west circa 1982,
  - 230m northeast circa 1927,
  - 374m north circa 1955,
  - 382m north circa 1927,
  - 42m southwest circa 1902 – 1923,
  - 231m southwest circa 1966,
  - 233m southwest circa 1902,
  - 368m northeast circa 1968,
  - 386m north circa 1923, and;
  - 388m north circa 1902.
- Pump, Sewage Tank and Tank were noted as:
  - 91m southwest circa 1864,
  - 121m west circa 1979,
  - 475m north circa 1970,
  - 491m west circa 1979, and;
  - 444m north circa 1924.
- Other Structures:
  - Refuse pit 44m northeast circa 1863,
  - Telephone exchange 131m southwest circa 1981,
  - Filter bed 212m north circa 1982,
  - Refuse heap 268m northeast circa 1982,
  - Brick and tile work 338m southwest circa 1901,
  - Sawmill 354m northeast circa 1927,
  - Pump house 355m southwest circa 1927,
  - Sewage pump house 370m north circa 1971, and;
  - Tile works 397m southwest circa 1861.

4 REGULATORY INFORMATION

4.1 GROUNDSURE REGULATORY INFORMATION SUMMARY

Table 4-1 – Regulatory Information Summary

Groundsure Feature	On-site	0-50m	50-250m	250-500m	Details
*Historical Industrial Land Uses	15	7	23	54	See Section 3
Historical Tanks	0	1	5	6	See Section 3
Historical Energy Features	0	0	0	1	The closest feature was a Gas distribution station located 408m north of the Study Area.
Historical Garages	0	0	0	0	N/A
Active or Recent Landfill	0	0	0	0	N/A
Historical Landfill Sites	0	0	0	0	N/A
Licenced Waste Sites	0	0	0	0	N/A
Historical Waste Sites	0	1	1	0	The closest feature was Ground workings and refuse heap located 41m northeast of the Study Area. Other recycling centre located 114m southwest of the Study Area.
Recent Industrial Land Uses	1	2	6	-	The closest feature relates to a Ship Dips and Washes on to the Study Area. Other records relate to water pumping stations located 40m southwest, agricultural contractors located 113m southwest, energy production located 156m southwest, telecommunications feature located 162m southwest and waste storage, processing and disposal located 217m north.
Current or Recent Petrol Stations	0	0	0	0	N/A
Gas Pipelines	3	0	1	0	The route passes through the on-site area, starting from the intersection near Belliehill Wood close to Tannadice and exiting at Drumgley. Meanwhile, the other

Groundsure Feature	On-site	0-50m	50-250m	250-500m	Details
					two routes intersect at Forest Muir and exit at Drumgley. Name: Aberdeen to Kiiriemuir Ownership: National Grid
Control of Major Accident Hazards (COMAH)	0	0	0	0	N/A
Hazardous Substances Storage/Use	0	0	0	0	N/A
Part A(1), IPPC and Historic IPC Authorisations	0	0	0	0	N/A
Pollution Inventory Substances	0	0	0	0	N/A
Pollution Inventory Waste Transfers	0	0	0	0	N/A
Part B Authorisations	0	0	1	0	The closest feature is PPC(B) – Combustion of fuels located at 193m north of the Study Area. License reference: PPC/E/30159

**The distance for all the features was calculated from the approximate centre of the Study Area at co-ordinate (347005, 757623).*

Note: The features listed in the above table have been derived from the data provided in the Groundsure Report and may not be present on the historical map.

4.2 RADON GAS

Based on the Groundsure report and UK Radon interactive map (https://www.ukradon.org/information/ukmaps) the majority of the southwestern portion of the Study Area lies within a low probability radon area where less than 1% of homes are estimated to be at or above the Action level The maximum radon is estimated to be between 1% - 3% are recorded at northeastern part of the Study Area near Coe Wood, Lochty Wood and Redford Wood.

Given the proposed land use, no radon protection measures are considered necessary for the Study Area.

4.3 UNEXPLODED ORDNANCE

Zetica Risk Maps indicate that the Study Area is located in an area of low risk in regard to unexploded ordnance (**Appendix B.2**).

The UXO Risk Map for the Study Area is included in **Appendix B.2.**

4.4 RADIUM

A review of available records for Radium was undertaken and this indicated the Study Area does not pass through SEPA's 1km search area for Radioactive substances. The risks associated with Radium are therefore considered low.

5 INITIAL CONCEPTUAL SITE MODEL

5.1 INTRODUCTION

This section of the report presents the characteristics of the Study Area and provides a systematic indication of the risks to enable uncertainties and further assessment needs or other actions to be identified. It draws on the information presented in earlier sections of the report to identify plausible contaminant-pathway-receptor contaminant linkages. Details regarding the legislative framework for this assessment are presented within **Appendix C**.

5.2 POTENTIAL SOURCES

Based on information (as presented in section 3 and section 4.1) reviewed as part of this desk study and findings of the Study Area inspection, the following potential sources of contamination have been identified:

Onsite

- Contamination resulting from current and historical land uses (Made ground, Railway sidings, , quarry etc).
- Ground gases (Made Ground, superficial deposits, infilled quarry, historical unspecified quarries).

Offsite

- Made Ground associated with development adjacent to the Study Area.
- Stockpiles of topsoil / Made Ground located adjacent to Study Area boundary.
- Contamination associated with offsite historical land uses.

Based on the above potential sources, the following contaminants may be present within the Study Area:

- Heavy metals, polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), chlorinated solvents, pesticides, nitrates, phosphates, sulphates, sulphides, cyanides, and asbestos
- Ground gases associated with Made Ground, including methane, carbon dioxide, carbon monoxide, hydrogen sulphide, and oxygen-deficient air, as well as potential landfill gases and radon.

5.3 POTENTIAL RECEPTORS

In the context of the proposed redevelopment, the following potential receptors were identified:

Human Health

- Future and current site occupiers/visitors (maintenance workers);
- Adjacent site users;
- Construction workers and below ground maintenance workers.

Water Environment

- Bedrock aquifer (Strathmore Group and Arbuthnott-Garvock Group)
- Surface water (Noran water and River South Esk)

Property

- Foundations and below ground structures.

5.4 POTENTIAL CONTAMINANT PATHWAYS

Relevant potential pathways are considered to include:

- Direct contact, ingestion or inhalation of soil-bound contaminants / dust (including permeation of water supply pipes);
- Direct inhalation of asbestos fibres within soils;
- Inhalation of vapours associated with soil / groundwater contamination;
- Migration of leachable/mobile contamination laterally and vertically through granular soils;
- Ground gas migration, inhalation and accumulation.

5.5 PLAUSIBLE CONTAMINANT LINKAGES

Table 5-1 provides an evaluation of those potential contaminant linkages considered to be plausible given our current Study Area understanding.

Table 5-1 – Plausible Contaminant Linkages

Potential Source	Exposure Pathway	Receptor	Probability of Exposure	Consequence of Exposure	Risk	Plausibility of Pathway
Made Ground associated with the historical development of roads. Historical and current uses – Unspecified Quarry, Unspecified tank, Railway track, Sewage pump, Sand and Gravel Quarry and, Gas pipeline. Electrical Features.	Inhalation, ingestion and dermal contact	Human health risks, including current and future site users, groundworkers	Unlikely	Medium	**Low**	Site users may be exposed to potential contaminants via direct dermal contact, ingestion and inhalation, or hazardous ground gases. As no enclosed spaces are included in the proposed development, the risk from ground gases is considered low. The principal human health risk is likely to be from contaminants within the soils and groundwater due to potentially contaminated Made Ground. Significant Made Ground is not expected to be encountered on most of the Study Area due to the lack of historical development, although it is noted that some historical industrial development has occurred on certain parts of the Study Area and the surrounding area. In the event of below ground works, site workers may be exposed to subsurface contamination should it exist. Yet it is generally accepted as both reasonable and an expectation that future construction workers would adopt appropriate procedures to manage health and safety risks on the assumption that a risk exists.
	Migration via infiltration into groundwater	Groundwater within superficial and bedrock deposits Surface water	Low likelihood	Mild	**Low**	The presence of hardstanding would be limited to the overhead line (OHL) tower bases which should impede the infiltration of precipitation and reduce the potential for leaching and off-site migration of any contamination. Given the current / historical use of the Study Area, the potential for legacy contaminants to migrates to the underlying bedrock aquifer is considered to be low.

Potential Source	Exposure Pathway	Receptor	Probability of Exposure	Consequence of Exposure	Risk	Plausibility of Pathway
		Site foundations	Unlikely	Medium	**Low**	Aggressive ground conditions may affect any proposed building foundations and underground pipes. With any new development, planning would be required, and such would require a site investigation, which would need to assess whether any mitigation was required.

5.6 PRELIMINARY CONTAMINANT LINKAGE ASSESSMENT

Based on consideration of the Study Area conditions, the environmental setting of the Study Area and the level of information currently available for the Study Area, potential plausible contaminant linkages have been identified. These are based on an assumed proposed industrial or commercial end use.

The terms describing Probability and Consequence are referenced from the CIRIA 552 document. Tables 6.3, 6.4 and 6.5 from CIRIA 552 are provided for reference in **Appendix D**.

5.7 PRELIMINARY RISK CLASSIFICATION FOR THE STUDY AREA

Based on the contaminant linkage assessment completed for the Study Area in consideration of its proposed use, the following risk classifications have been determined:

- With respect to human health, the risks have been assessed as **Low**;
- With respect to surface waters, the risks from the Study Area have been assessed as **Low**
- With respect to groundwater, the risks from the Study Area have been assessed as **Low**;
- With respect to buildings and services, the Study Area is classified as **Low**;

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

The potential for legacy ground contamination in shallow soils is considered possible based on historical onsite and offsite uses.

The principal risks are considered to be to the current and future site users. However, the presence of hardstanding (tower bases) reduces the probability of user exposure at a material frequency should such contamination exist in these areas.

Based on the information contained within this report, it is the opinion of WSP that the Study Area represents a **Low risk** with respect to contaminated land liabilities.

6.2 RECOMMENDATIONS

Based on the above, an intrusive ground investigation is recommended to confirm the anticipated ground conditions and enable further assessment of the above constraints.

The ground investigation should be undertaken in accordance with BS5930 and BS10175 and should be designed and scoped to provide further understanding / confirmation of the following:

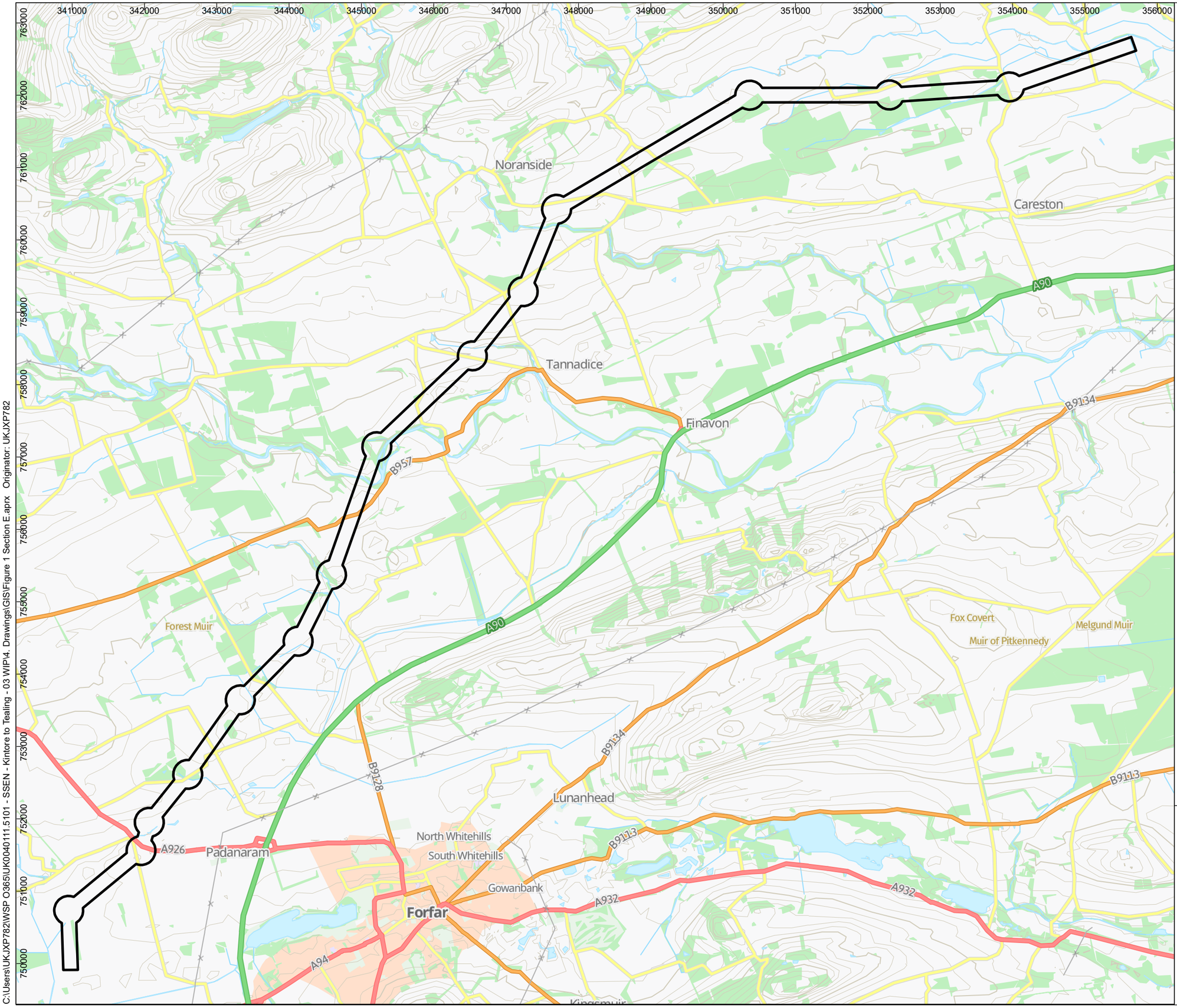
- Extent and characteristics of contamination on soils and groundwater; and
- Risks to future site users and the wider environment.

Should the Study Area use change then the contents of this report should be revisited in ensuring that the land is made suitable for any new use.

Please note: this summary forms part of WSP's Phase I Geoenvironmental Preliminary Risk Assessment (ref.: UK0040111.5101 /005). Under no circumstances is it to be used as an independent document.

Appendix A

FIGURES



Key

Section B

0 500 1,000 1,500 2,000 2,500 3,000m

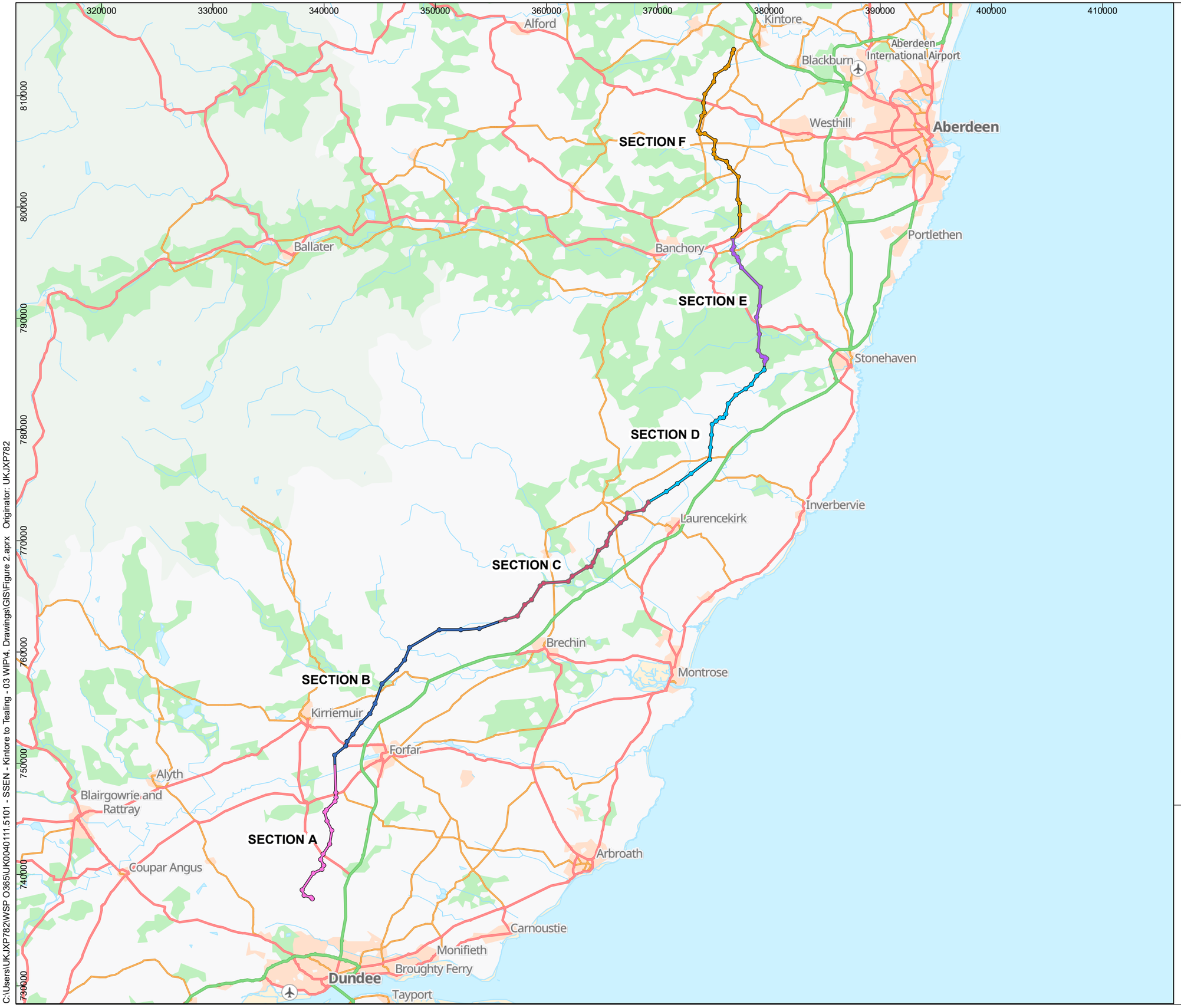
Scale at A3: 1:50,000

Kintore-Tealing 400kV Overhead Line (OHL) Connection

Figure 1
Site location plan

February 2025

C:\Users\UKJXP782\WSP O365\UK0040111-5101 - SSEN - Kintore to Tealing - 03 WIP\4. Drawings\GIS\Figure 1 Section E.aprx Originator: UKJXP782



Key

- Section F
- Section E
- Section D
- Section C
- Section B
- Section A

0 5 10 15 20km

Scale at A3: 1:325,000

Kintore-Tealing 400kV Overhead Line (OHL) Connection

Figure 2
Proposed development plan

February 2025

Figure 2.aprx

Appendix B

ADDITIONAL INFORMATION

Appendix B.1

GROUNDSURE REPORT

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

Section B

Order Details

Date: 04/09/2025

Your ref: P110439UK001

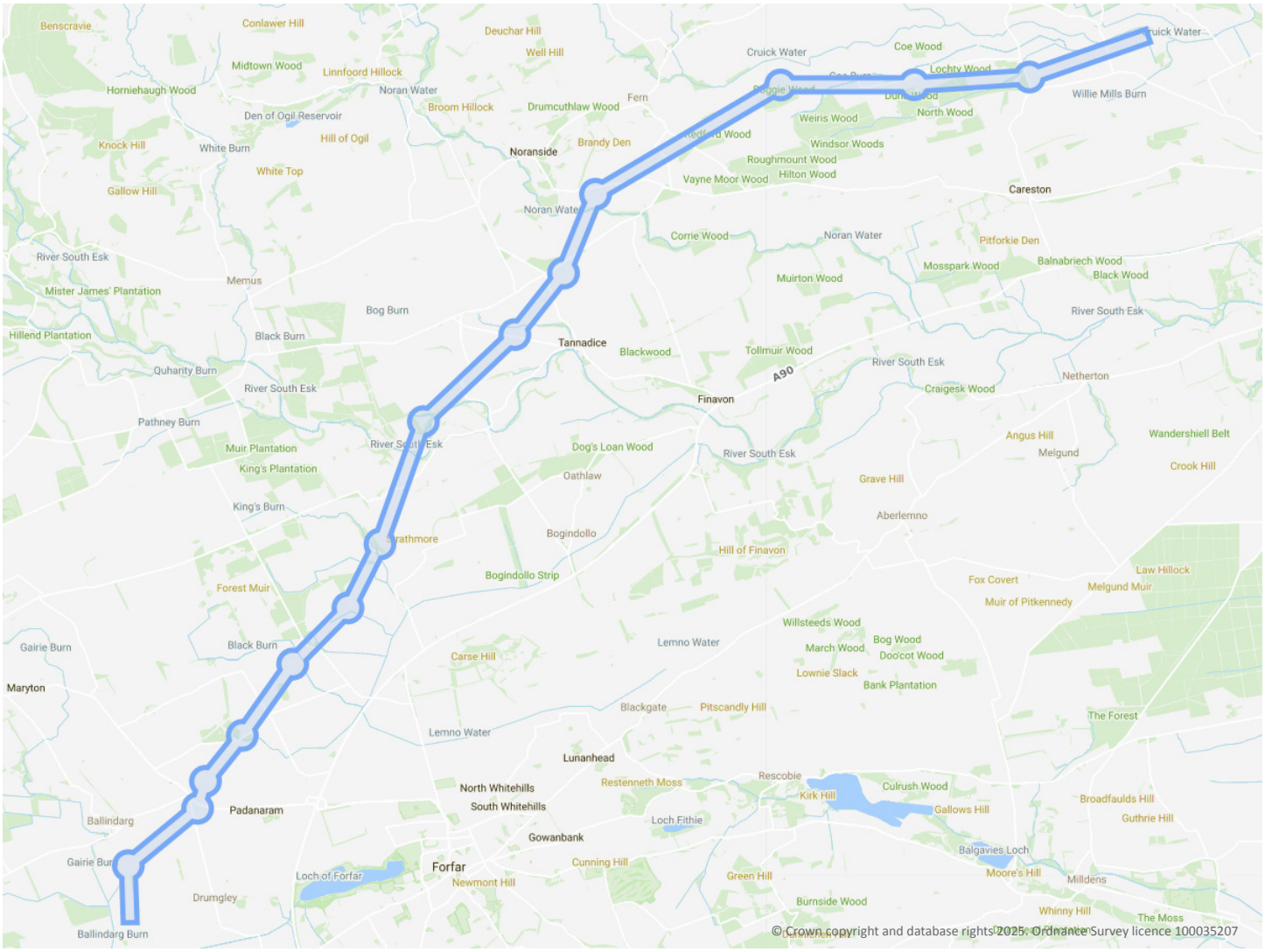
Our Ref: WSP-NMR-R7Q-RRB-XJJ

Site Details

Location: 347005 757623

Area: 495.14 ha

Authority: Angus Council ↗



Summary of findings p. 2 >

OS MasterMap site plan N/A: >10ha

Aerial image p. 7 >

Insight User Guide ↗

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
12 >	1.1 >	Historical industrial land uses >	15	7	23	54	-
16 >	1.2 >	Historical tanks >	0	1	5	6	-
17 >	1.3 >	Historical energy features >	0	0	0	1	-
17	1.4	Historical petrol stations	0	0	0	0	-
18	1.5	Historical garages	0	0	0	0	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
19 >	2.1 >	Historical industrial land uses >	20	8	32	69	-
24 >	2.2 >	Historical tanks >	0	2	5	6	-
25 >	2.3 >	Historical energy features >	0	0	0	1	-
25	2.4	Historical petrol stations	0	0	0	0	-
26	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
27	3.1	Active or recent landfill	0	0	0	0	-
27	3.2	Historical landfill (BGS records)	0	0	0	0	-
28	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
28	3.4	Licensed waste sites	0	0	0	0	-
28 >	3.5 >	Historical waste sites >	0	1	1	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
29 >	4.1 >	Recent industrial land uses >	1	2	6	-	-
30 >	4.2 >	National Geographic Database (NGD) - Current or recent tanks >	0	0	6	-	-
31	4.3	Current or recent petrol stations	0	0	0	0	-
31	4.4	Electricity cables	0	0	0	0	-
31 >	4.5 >	Gas pipelines >	3	0	1	0	-
32	4.6	Sites determined as Contaminated Land	0	0	0	0	-
32	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-

32	4.8	Regulated explosive sites	0	0	0	0	-
32	4.9	Hazardous substance storage/usage	0	0	0	0	-
32	4.10	Part A(1), IPPC and Historic IPC Authorisations	0	0	0	0	-
33 >	4.11 >	Part B Authorisations >	0	0	1	0	-
33	4.12	Pollution inventory substances	0	0	0	0	-
33	4.13	Pollution inventory waste transfers	0	0	0	0	-
33	4.14	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
34 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
36 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
38 >	6.1 >	Water Network (OS MasterMap) >	163	47	161	-	-
67 >	6.2 >	Surface water features >	1	25	86	-	-
Page	Section	River flooding >					
68 >	7.1 >	River flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Coastal flooding					
70	8.1	Coastal flooding	Negligible (within 50m)				
Page	Section	Surface water flooding >					
71 >	9.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
73 >	10.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
74 >	11.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	2
75	11.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
75 >	11.3 >	Special Areas of Conservation (SAC) >	2	0	0	0	6
77	11.4	Special Protection Areas (SPA)	0	0	0	0	0
78	11.5	National Nature Reserves (NNR)	0	0	0	0	0
78	11.6	Local Nature Reserves (LNR)	0	0	0	0	0
78 >	11.7 >	Designated Ancient Woodland >	10	2	5	12	46

81	11.8	Biosphere Reserves	0	0	0	0	0
81	11.9	Forest Parks	0	0	0	0	0
82	11.10	Marine Conservation Zones	0	0	0	0	0
Page	Section	**Visual and cultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
83	12.1	World Heritage Sites	0	0	0	-	-
84	12.2	Area of Outstanding Natural Beauty	0	0	0	-	-
84	12.3	National Parks	0	0	0	-	-
84 >	**12.4 >**	**Listed Buildings >**	0	0	2	-	-
85	12.5	Conservation Areas	0	0	0	-	-
85 >	**12.6 >**	**Scheduled Ancient Monuments >**	1	2	0	-	-
85	12.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	**Agricultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
86 >	**13.1 >**	**Agricultural Land Classification >**	Grade 4.1 (within 250m)				
Page	Section	**Geology 1:10,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
88 >	**14.1 >**	**10k Availability >**	Identified (within 500m)				
89	14.2	Artificial and made ground (10k)	0	0	0	0	-
90	14.3	Superficial geology (10k)	0	0	0	0	-
90	14.4	Landslip (10k)	0	0	0	0	-
91	14.5	Bedrock geology (10k)	0	0	0	0	-
91	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	**Geology 1:50,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
92 >	**15.1 >**	**50k Availability >**	Identified (within 500m)				
93	15.2	Artificial and made ground (50k)	0	0	0	0	-
93	15.3	Artificial ground permeability (50k)	0	0	-	-	-
94 >	**15.4 >**	**Superficial geology (50k) >**	13	0	2	3	-
95 >	**15.5 >**	**Superficial permeability (50k) >**	Identified (within 50m)				
96	15.6	Landslip (50k)	0	0	0	0	-
96	15.7	Landslip permeability (50k)	None (within 50m)				
97 >	**15.8 >**	**Bedrock geology (50k) >**	6	0	1	2	-

98 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
98 >	15.10 >	Bedrock faults and other linear features (50k) >	3	0	1	0	-
Page	Section	**Boreholes** >	On site	0-50m	50-250m	250-500m	500-2000m
100 >	16.1 >	BGS Boreholes >	1	0	0	-	-
Page	Section	**Natural ground subsidence** >					
101 >	17.1 >	Shrink swell clays >	Low (within 50m)				
103 >	17.2 >	Running sands >	Low (within 50m)				
105 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
107 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
108 >	17.5 >	Landslides >	Moderate (within 50m)				
110 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	**Mining and ground workings** >	On site	0-50m	50-250m	250-500m	500-2000m
112 >	18.1 >	BritPits >	2	1	5	6	-
116 >	18.2 >	Surface ground workings >	32	5	26	-	-
119	18.3	Underground workings	0	0	0	0	0
119	18.4	Underground mining extents	0	0	0	0	-
119	18.5	Historical Mineral Planning Areas	0	0	0	0	-
119 >	18.6 >	Non-coal mining >	7	0	0	1	2
121	18.7	JPB mining areas	None (within 0m)				
121	18.8	The Coal Authority non-coal mining	0	0	0	0	-
121	18.9	Researched mining	0	0	0	0	-
121	18.10	Mining record office plans	0	0	0	0	-
122	18.11	BGS mine plans	0	0	0	0	-
122	18.12	Coal mining	None (within 0m)				
122	18.13	Brine areas	None (within 0m)				
122	18.14	Gypsum areas	None (within 0m)				
122	18.15	Tin mining	None (within 0m)				
123	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m

124	19.1	Natural cavities	0	0	0	0	-
124	19.2	Mining cavities	0	0	0	0	0
124	19.3	Reported recent incidents	0	0	0	0	-
124	19.4	Historical incidents	0	0	0	0	-
Page	Section	**Radon** >					
126 >	**20.1** >	**Radon** >	Between 1% and 3% (within 0m)				
Page	Section	**Soil chemistry** >	On site	0-50m	50-250m	250-500m	500-2000m
128 >	**21.1** >	**BGS Estimated Background Soil Chemistry** >	183	17	-	-	-
135	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
135	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	**Railway infrastructure and projects** >	On site	0-50m	50-250m	250-500m	500-2000m
136	22.1	Underground railways (London)	0	0	0	-	-
136	22.2	Underground railways (Non-London)	0	0	0	-	-
137	22.3	Railway tunnels	0	0	0	-	-
137 >	**22.4** >	**Historical railway and tunnel features** >	3	0	3	-	-
137	22.5	Royal Mail tunnels	0	0	0	-	-
138 >	**22.6** >	**Historical railways** >	8	0	2	-	-
138	22.7	Railways	0	0	0	-	-
138	22.8	Crossrail 2	0	0	0	0	-
139	22.9	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 30/05/2023

Site Area: 495.14ha

Recent site history - 2020 aerial photograph

Capture Date: 24/04/2020

Site Area: 495.14ha

Recent site history - 2013 aerial photograph

Capture Date: 26/05/2013

Site Area: 495.14ha

Recent site history - 2006 aerial photograph

Capture Date: 10/09/2006

Site Area: 495.14ha

Recent site history - 2001 aerial photograph

Capture Date: 11/05/2001

Site Area: 495.14ha

1 Past land use

Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	99

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12 >**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Cuttings**	**1955**	**474031**

ID	Location	Land use	Dates present	Group ID
2	**On site**	**Boat House**	**1901**	**478150**
3	**On site**	**Unspecified Pit**	**1861**	**480486**
4	**On site**	**Railway Sidings**	**1927 - 1955**	**489868**
5	**On site**	**Gravel Pit**	**1900 - 1927**	**502551**
A	**On site**	**Unspecified Old Quarry**	**1901**	**476627**
A	**On site**	**Unspecified Disused Pit**	**1981**	**479504**
A	**On site**	**Unspecified Quarry**	**1927**	**489932**
B	**On site**	**Unspecified Quarry**	**1969 - 1990**	**487066**
B	**On site**	**Unspecified Old Quarry**	**1900 - 1927**	**492213**
B	**On site**	**Unspecified Old Quarry**	**1955**	**493615**
B	**On site**	**Unspecified Quarry**	**1861**	**499843**
C	**On site**	**Cuttings**	**1955**	**490089**
C	**On site**	**Cuttings**	**1981**	**501530**
C	**On site**	**Cuttings**	**1901 - 1927**	**502533**
A	5m NW	Unspecified Quarry	1861	499509
A	11m NW	Unspecified Quarry	1955	498766
D	32m E	Corn Mill	1861	487765
D	37m E	Corn Mill	1901 - 1927	484713
E	44m SE	Refuse Pit	1863	479549
E	47m SE	Old Gravel Pit	1901	471959
E	47m SE	Unspecified Pit	1927	480150
D	58m E	Unspecified Mill	1861	473484
8	91m NE	Gravel Pit	1927 - 1955	489406
F	112m SE	Railway Sidings	1955	475045
D	117m E	Unspecified Tanks	1982	476151
G	122m SE	Gravel Pit	1900 - 1927	499504
H	126m W	Smithy	1861 - 1901	501551
G	127m SE	Unspecified Pit	1971	480473

ID	Location	Land use	Dates present	Group ID
H	131m W	Telephone Exchange	1981	478655
I	162m NW	Gravel Pit	1901	484185
I	180m NW	Unspecified Pit	1863	480621
9	188m W	Gravel Pit	1901	484130
J	191m N	Unspecified Mill	1955	473296
J	195m N	Corn Mill	1863 - 1927	498358
10	198m NW	Gravel Pit	1901	483945
F	200m SE	Railway Building	1955	482374
F	204m SE	Railway Building	1861 - 1927	492710
11	212m SE	Filter Bed	1982	479601
12	229m SE	Cuttings	1861	474119
K	230m N	Unspecified Tank	1927	489594
K	235m N	Unspecified Tank	1955	502306
M	246m W	Burial Ground	1969 - 1990	494775
N	247m SE	Cuttings	1955	501652
13	248m SE	Cuttings	1900 - 1927	490346
14	251m SE	Cuttings	1861	489080
O	252m E	Unspecified Quarry	1927	493502
O	252m E	Unspecified Quarry	1900	502439
15	252m E	Cuttings	1955 - 1982	500213
O	258m E	Unspecified Quarry	1955	484655
O	268m E	Refuse Heap	1982	475505
P	268m NW	Smithy	1969 - 1990	496824
16	284m SE	Unspecified Mill	1861	473483
17	292m NW	Cuttings	1927 - 1955	488416
M	293m W	Burial Ground	1861	501361
Q	295m N	Unspecified Mill	1955	473377
R	313m NW	Unspecified Pit	1862	500137

ID	Location	Land use	Dates present	Group ID
R	318m NW	Unspecified Pit	1927	486364
18	320m NW	Gravel Pit	1901	484008
P	323m NW	Smithy	1900	488734
19	324m SE	Cuttings	1900 - 1927	494186
S	332m NW	Unspecified Old Quarry	1901	476626
S	332m NW	Unspecified Quarry	1927 - 1955	486807
T	338m SW	Brick and Tile Works	1901	479562
S	340m NW	Unspecified Ground Workings	1861	481458
N	345m S	Cuttings	1900 - 1927	485682
P	347m NW	Smithy	1861	487508
20	348m S	Cuttings	1861	499387
21	349m S	Cuttings	1955	474114
Q	354m N	Sawmill	1927	481822
Q	354m N	Corn Mill	1863 - 1901	490913
22	355m E	Pump House	1927	481018
T	363m SW	Unspecified Commercial/Industrial	1927	472910
24	370m W	Sewage Pump House	1971	475854
U	374m SE	Unspecified Tank	1955	477796
U	382m SE	Unspecified Tank	1927	477798
V	397m NW	Railway Sidings	1955	493018
25	397m SW	Tile Works	1861	483416
X	408m NW	Unspecified Disused Pit	1971	479465
W	408m NW	Gas Distribution Station	1990	473963
Y	408m W	Unspecified Pit	1927 - 1955	486290
26	409m NW	Unspecified Ground Workings	1863	481286
27	415m SE	Unspecified Quarry	1901 - 1927	489601
Y	416m W	Unspecified Ground Workings	1861	481459
28	420m SE	Unspecified Quarry	1901 - 1927	487370

ID	Location	Land use	Dates present	Group ID
V	426m N	Railway Sidings	1861 - 1927	497178
X	443m NW	Gravel Pit	1927	484005
Z	447m NW	Sewage Tank	1927	473960
29	447m SE	Unspecified Heap	1927	478438
Z	456m NW	Sewage Works	1971	473134
Z	468m NW	Unspecified Tank	1971	477791
AA	475m SW	Old Clay Pit	1901 - 1927	500471
30	480m NW	Burial Ground	1862	484201
AA	480m SW	Old Clay Pit	1955	489328
AB	483m W	Refuse Heap	1862	475507
AC	489m SE	Unspecified Tanks	1982	476152
AB	491m W	Unspecified Old Quarry	1900	476623
AB	491m W	Unspecified Pit	1927	480148
31	493m NW	Unspecified Tank	1862 - 1927	487207

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**12**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12 >**

ID	Location	Land use	Dates present	Group ID
6	42m E	Unspecified Tank	1902 - 1923	67156
7	91m NW	Pump and Tank	1864	65441
D	121m E	Tanks	1979	63030
K	229m N	Unspecified Tank	1924	64065

ID	Location	Land use	Dates present	Group ID
L	231m SE	Unspecified Tank	1966	66397
L	233m SE	Unspecified Tank	1902	66670
23	368m SE	Unspecified Tank	1968	64080
U	386m SE	Unspecified Tank	1923	64069
U	388m SE	Unspecified Tank	1902	64068
Z	444m NW	Sewage Tank	1924	63298
Z	475m NW	Tanks	1970	63031
AC	491m SE	Tanks	1979	63032

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**1**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12 >**

ID	Location	Land use	Dates present	Group ID
W	408m NW	Gas Distribution Station	1981	35951

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m	0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped

2.1 Historical industrial land uses

Records within 500m	129

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
1	**On site**	**Unspecified Pit**	**1861**	**480486**
2	**On site**	**Boat House**	**1901**	**478150**
3	**On site**	**Cuttings**	**1955**	**474031**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Railway Sidings**	**1955**	**489868**
A	**On site**	**Railway Sidings**	**1927**	**489868**
B	**On site**	**Unspecified Disused Pit**	**1981**	**479504**
B	**On site**	**Unspecified Quarry**	**1927**	**489932**
B	**On site**	**Unspecified Old Quarry**	**1901**	**476627**
C	**On site**	**Cuttings**	**1955**	**490089**
C	**On site**	**Cuttings**	**1981**	**501530**
C	**On site**	**Cuttings**	**1927**	**502533**
C	**On site**	**Cuttings**	**1901**	**502533**
D	**On site**	**Unspecified Quarry**	**1990**	**487066**
D	**On site**	**Unspecified Old Quarry**	**1955**	**493615**
D	**On site**	**Unspecified Quarry**	**1969**	**487066**
D	**On site**	**Unspecified Old Quarry**	**1927**	**492213**
D	**On site**	**Unspecified Old Quarry**	**1900**	**492213**
D	**On site**	**Unspecified Quarry**	**1861**	**499843**
E	**On site**	**Gravel Pit**	**1927**	**502551**
E	**On site**	**Gravel Pit**	**1900**	**502551**
B	5m NW	Unspecified Quarry	1861	499509
B	11m NW	Unspecified Quarry	1955	498766
F	32m E	Corn Mill	1861	487765
F	37m E	Corn Mill	1927	484713
F	37m E	Corn Mill	1901	484713
H	44m SE	Refuse Pit	1863	479549
H	47m SE	Unspecified Pit	1927	480150
H	47m SE	Old Gravel Pit	1901	471959
F	58m E	Unspecified Mill	1861	473484
I	91m NE	Gravel Pit	1955	489406
I	94m NE	Gravel Pit	1927	489406

ID	Location	Land Use	Date	Group ID
J	112m SE	Railway Sidings	1955	475045
F	117m E	Unspecified Tanks	1982	476151
K	122m SE	Gravel Pit	1900	499504
L	126m W	Smithy	1901	501551
K	127m SE	Unspecified Pit	1971	480473
L	131m W	Telephone Exchange	1981	478655
L	136m W	Smithy	1861	501551
K	139m SE	Gravel Pit	1927	499504
M	162m NW	Gravel Pit	1901	484185
M	180m NW	Unspecified Pit	1863	480621
5	188m W	Gravel Pit	1901	484130
N	191m N	Unspecified Mill	1955	473296
N	195m N	Corn Mill	1927	498358
N	195m N	Corn Mill	1901	498358
N	195m N	Corn Mill	1863	498358
6	198m NW	Gravel Pit	1901	483945
J	200m SE	Railway Building	1955	482374
J	204m SE	Railway Building	1927	492710
J	204m SE	Railway Building	1900	492710
J	204m SE	Railway Building	1861	492710
7	212m SE	Filter Bed	1982	479601
8	229m SE	Cuttings	1861	474119
O	230m N	Unspecified Tank	1927	489594
O	235m N	Unspecified Tank	1955	502306
Q	246m W	Burial Ground	1990	494775
Q	246m W	Burial Ground	1969	494775
R	247m SE	Cuttings	1955	501652
S	248m SE	Cuttings	1927	490346

ID	Location	Land Use	Date	Group ID
S	248m SE	Cuttings	1900	490346
9	251m SE	Cuttings	1861	489080
T	252m E	Unspecified Quarry	1927	493502
T	252m E	Unspecified Quarry	1900	502439
10	252m E	Cuttings	1982	500213
11	254m E	Cuttings	1955	500213
T	258m E	Unspecified Quarry	1955	484655
T	268m E	Refuse Heap	1982	475505
U	268m NW	Smithy	1990	496824
U	268m NW	Smithy	1969	496824
12	284m SE	Unspecified Mill	1861	473483
V	292m NW	Cuttings	1955	488416
V	293m NW	Cuttings	1927	488416
Q	293m W	Burial Ground	1861	501361
W	295m N	Unspecified Mill	1955	473377
X	313m NW	Unspecified Pit	1862	500137
X	318m NW	Unspecified Pit	1927	486364
13	320m NW	Gravel Pit	1901	484008
U	323m NW	Smithy	1900	488734
Y	324m SE	Cuttings	1927	494186
Y	324m SE	Cuttings	1900	494186
Z	332m NW	Unspecified Quarry	1927	486807
Z	332m NW	Unspecified Old Quarry	1901	476626
Z	332m NW	Unspecified Quarry	1955	486807
AA	338m SW	Brick and Tile Works	1901	479562
Z	340m NW	Unspecified Ground Workings	1861	481458
R	345m S	Cuttings	1927	485682
R	345m S	Cuttings	1900	485682

ID	Location	Land Use	Date	Group ID
U	347m NW	Smithy	1861	487508
14	348m S	Cuttings	1861	499387
15	349m S	Cuttings	1955	474114
W	354m N	Sawmill	1927	481822
W	354m N	Corn Mill	1901	490913
W	354m N	Corn Mill	1863	490913
16	355m E	Pump House	1927	481018
AA	363m SW	Unspecified Commercial/Industrial	1927	472910
18	370m W	Sewage Pump House	1971	475854
AB	374m SE	Unspecified Tank	1955	477796
AB	382m SE	Unspecified Tank	1927	477798
AC	397m NW	Railway Sidings	1955	493018
19	397m SW	Tile Works	1861	483416
AE	408m NW	Unspecified Disused Pit	1971	479465
AD	408m NW	Gas Distribution Station	1990	473963
AF	408m W	Unspecified Pit	1927	486290
20	409m NW	Unspecified Ground Workings	1863	481286
AF	411m W	Unspecified Pit	1955	486290
AG	415m SE	Unspecified Quarry	1927	489601
AG	415m SE	Unspecified Quarry	1901	489601
AF	416m W	Unspecified Ground Workings	1861	481459
AH	420m SE	Unspecified Quarry	1927	487370
AH	420m SE	Unspecified Quarry	1901	487370
AC	426m N	Railway Sidings	1927	497178
AC	426m N	Railway Sidings	1900	497178
AC	426m N	Railway Sidings	1861	497178
AE	443m NW	Gravel Pit	1927	484005
AI	447m NW	Sewage Tank	1927	473960

ID	Location	Land Use	Date	Group ID
21	447m SE	Unspecified Heap	1927	478438
AI	456m NW	Sewage Works	1971	473134
AI	468m NW	Unspecified Tank	1971	477791
AJ	475m SW	Old Clay Pit	1927	500471
AJ	475m SW	Old Clay Pit	1901	500471
22	480m NW	Burial Ground	1862	484201
AJ	480m SW	Old Clay Pit	1955	489328
AK	483m W	Refuse Heap	1862	475507
AL	489m SE	Unspecified Tanks	1982	476152
AK	491m W	Unspecified Pit	1927	480148
AK	491m W	Unspecified Old Quarry	1900	476623
AM	493m NW	Unspecified Tank	1927	487207
AM	493m NW	Unspecified Tank	1900	487207
AM	493m NW	Unspecified Tank	1862	487207

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**13**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
G	42m E	Unspecified Tank	1902	67156
G	42m E	Unspecified Tank	1923	67156
4	91m NW	Pump and Tank	1864	65441
F	121m E	Tanks	1979	63030
O	229m N	Unspecified Tank	1924	64065
P	231m SE	Unspecified Tank	1966	66397

ID	Location	Land Use	Date	Group ID
P	233m SE	Unspecified Tank	1902	66670
17	368m SE	Unspecified Tank	1968	64080
AB	386m SE	Unspecified Tank	1923	64069
AB	388m SE	Unspecified Tank	1902	64068
AI	444m NW	Sewage Tank	1924	63298
AI	475m NW	Tanks	1970	63031
AL	491m SE	Tanks	1979	63032

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	1

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
AD	408m NW	Gas Distribution Station	1981	35951

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill

Site Outline

Search buffers in metres (m)

Historical waste sites

3.1 Active or recent landfill

Records within 500m	0

Active or recently closed landfill sites under Scottish Environment Protection (SEPA) regulation.

This data is sourced from the Scottish Environment Protection Agency.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Licensed waste sites

Records within 500m	0

Active or recently closed waste sites under Scottish Environment Protection Acency (SEPA) regulation.

This data is sourced from the Scottish Environment Protection Agency.

3.5 Historical waste sites

Records within 500m	2

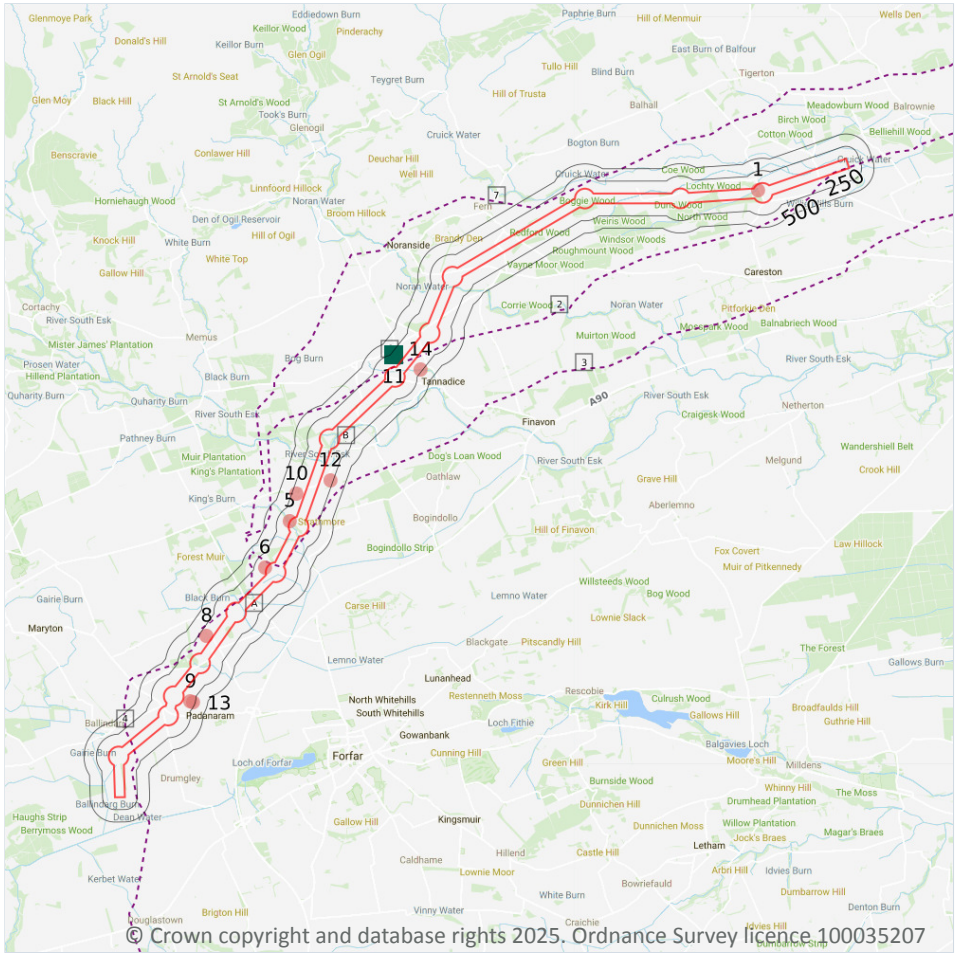
Waste site records derived from Local Authority planning records and high detail historical mapping.

Features are displayed on the Waste and landfill map on **page 27 >**

ID	Location	Address	Further Details	Date
1	41m SE	Site Address: N/A	Type of Site: Ground Workings and Refuse Heap Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1924
2	114m E	Site Address: Field 275M East Of Dragonhall, Padanaram, Forfar, Tayside, DD8 1PF	Type of Site: Recycling Centre Planning application reference: 15/01151/PPPL Description: Scheme comprises formation of a new recycling centre with associated access and ancillary development. Data source: Historic Planning Application Data Type: Point	-

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

4 Current industrial land use



Site Outline

Search buffers in metres (m)

Recent industrial land uses

NGD current or recent tanks

Gas pipelines

Part B Authorisations

4.1 Recent industrial land uses

Records within 250m	9

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 29 >**

ID	Location	Company	Address	Activity	Category
1	**On site**	**Sheep Wash**	**Angus, DD9**	**Sheep Dips and Washes**	**Farming**
5	13m NW	Workings (Dis)	Angus, DD8	Unspecified Quarries Or Mines	Extractive Industries
6	40m NW	Pump	Angus, DD8	Water Pumping Stations	Industrial Features

ID	Location	Company	Address	Activity	Category
8	113m NW	Andy E Mitchell & Son	Haughs of Ballinshoe Farm, Ballinshoe, Forfar, Angus, DD8 3TL	Agricultural Contractors	Contract Services
9	156m E	Dragon Hall Solar Farm	Angus, DD8	Energy Production	Industrial Features
10	162m W	Telephone Exchange	Angus, DD8	Telecommunications Features	Infrastructure and Facilities
12	197m E	Aquarian Personalised Embroidery	Quarryhill Cottage, Cairnhill, Forfar, Angus, DD8 3TQ	Textiles, Fabrics, Silk and Machinery	Industrial Products
13	206m E	Solar Panels	Angus, DD8	Energy Production	Industrial Features
14	217m SE	Filter Bed	Angus, DD8	Waste Storage, Processing and Disposal	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m	**6**

Current or recent tanks identified from the Ordnance Survey NGD.

Features are displayed on the Current industrial land use map on **page 29 >**

ID	Location	Tank description	Activity	Date first identified
A	117m SE	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	22/05/2010
A	117m SE	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	22/05/2010
B	128m E	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	22/04/2023
B	132m E	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	22/04/2023
C	236m NW	Open Storage Tank	Commercial Activity: Distribution Or Storage	19/09/2015
C	236m NW	Open Storage Tank	Commercial Activity: Distribution Or Storage	19/09/2015

This data is sourced from Ordnance Survey.

4.3 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	4

High pressure underground gas transmission pipelines.

Features are displayed on the Current industrial land use map on **page 29 >**

ID	Location	Pipe Name	Details	
2	**On site**	**ABERDEEN TO KIRRIEMUIR**	**Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -**	**Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned**
3	**On site**	**ABERDEEN TO KIRRIEMUIR**	**Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -**	**Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned**
4	**On site**	**KIRRIEMUIR TO BATHGATE**	**Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -**	**Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned**
7	76m NW	ABERDEEN TO KIRRIEMUIR	Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -	Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned

This data is sourced from National Grid.

4.6 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.10 Part A(1), IPPC and Historic IPC Authorisations

Records within 500m	0

Records of Part A installations regulated for the release of substances to the environment.

This data is sourced from the Scottish Environment Protection Agency.

4.11 Part B Authorisations

Records within 500m	1

Records of Part B installations regulated for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 29 >**

ID	Location	Address	Operator	Processes undertaken	License reference
11	192m NW	Baldoukie, Forfar, Angus, Dd8 3sn	Baldoukie Motors Ltd	PPC(B) - Combustion of Fuels	PPC/E/30159

This data is sourced from the Scottish Environment Protection Agency.

4.12 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.

4.13 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.

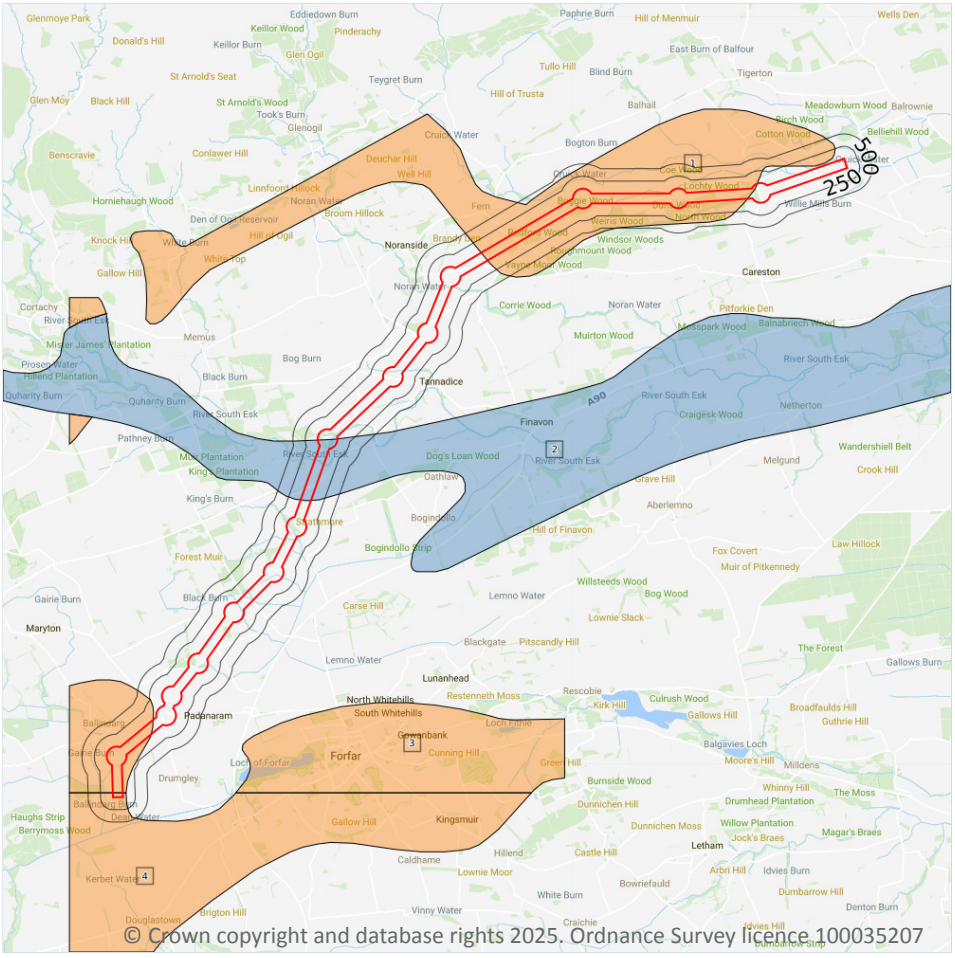
4.14 Pollution inventory radioactive waste

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



5.1 Superficial aquifer

Records within 500m	4

Records of groundwater classification within superficial geology.

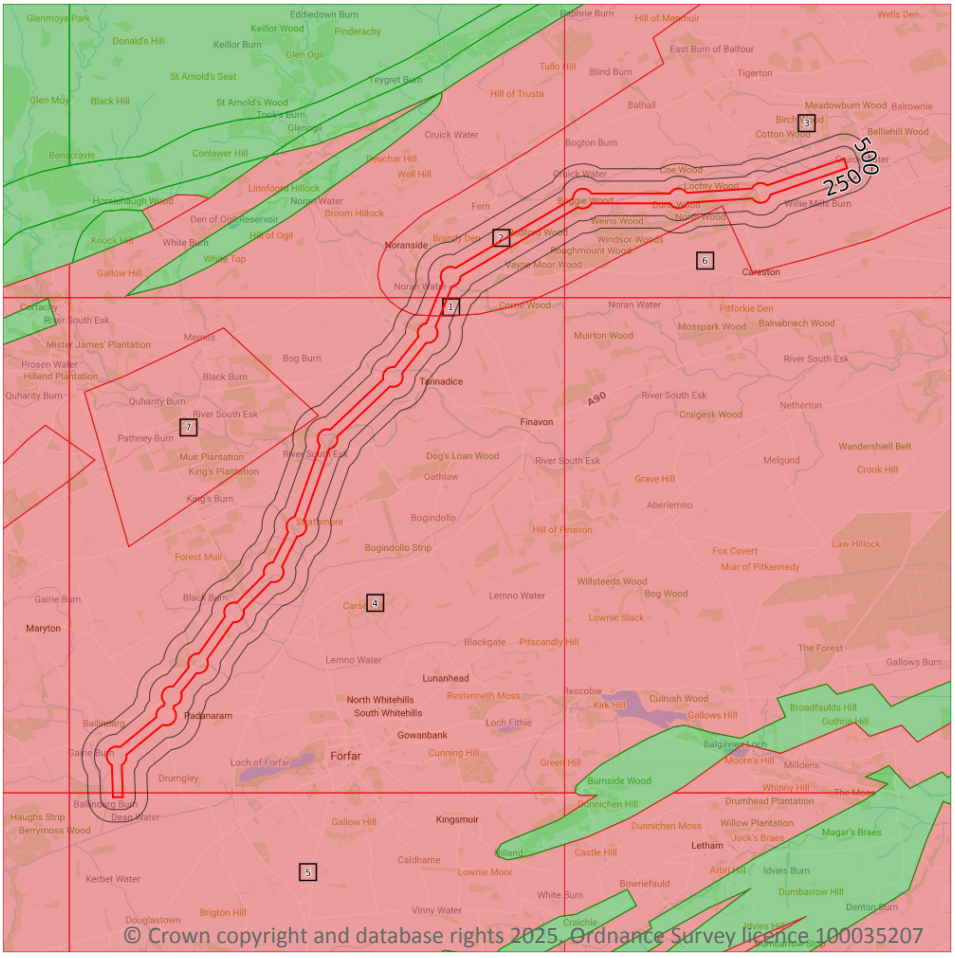
Features are displayed on the Hydrogeology map on **page 34 >**

ID	Location	Description	Type	Rock description
1	On site	Aquifers in which intergranular flow is significant	Locally important aquifers	Quaternary Sands and Gravels
2	On site	Concealed aquifers, aquifers of limited potential, regions without significant groundwater	Concealed aquifers; aquifers with limited or local potential	Quaternary Coastal and Fluviatile Alluvium

ID	Location	Description	Type	Rock description
3	**On site**	**Aquifers in which intergranular flow is significant**	**Locally important aquifers**	**Quaternary Sands and Gravels**
4	**On site**	**Aquifers in which intergranular flow is significant**	**Locally important aquifers**	**Quaternary Sands and Gravels**

This data is sourced from the British Geological Survey.

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Highly productive - fissures/discontinuities
- Highly productive - intergranular
- Moderately productive - fissures/discontinuities
- Moderately productive - intergranular
- Low productive - fissures/discontinuities
- Low productive - intergranular
- No significant groundwater

5.2 Bedrock aquifer

Records within 500m **7**

Records of groundwater classification within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 36 >**

ID	Location	Description	Flow	Summary	Rock description
1	**On site**	**Moderately productive aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas locally yield up to 12 L/s in parts of Strathmore.**	**STRATHMORE GROUP**

ID	Location	Description	Flow	Summary	Rock description
2	**On site**	**Moderately productive aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas locally yield up to 12 L/s in parts of Strathmore.**	**STRATHMORE GROUP**
3	**On site**	**Moderately productive aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas locally yield up to 12 L/s in parts of Strathmore.**	**STRATHMORE GROUP**
4	**On site**	**Moderately productive aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas, locally yield moderate amounts of groundwater.**	**ARBUTHNOTT-GARVOCK GROUP**
5	**On site**	**Moderately productive aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas, locally yield moderate amounts of groundwater.**	**ARBUTHNOTT-GARVOCK GROUP**
6	113m S	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas, locally yield moderate amounts of groundwater.	ARBUTHNOTT-GARVOCK GROUP
7	295m NW	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas locally yield up to 12 L/s in parts of Strathmore.	STRATHMORE GROUP

This data is sourced from the British Geological Survey.

6 Hydrology

Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

6.1 Water Network (OS MasterMap)

Records within 250m	371

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 38 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	-

ID	Location	Type of water feature	Ground level	Permanence	Name
2	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
4	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
6	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
7	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
8	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
9	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
10	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	King's Burn
11	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
12	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
13	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
14	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk

ID	Location	Type of water feature	Ground level	Permanence	Name
15	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
16	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
17	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bog Burn
18	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
19	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
20	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
21	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
22	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
23	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
24	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
25	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
26	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Noran Water
27	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Noran Water

ID	Location	Type of water feature	Ground level	Permanence	Name
28	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
29	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
30	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Coe Burn
31	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Coe Burn
32	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
33	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
34	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Coe Burn
A	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	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
E	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
F	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
H	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
J	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
K	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
M	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
N	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
N	On site	Lake, loch or reservoir.	Not provided	Watercourse contains water year round (in normal circumstances)	-
O	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Burn
P	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
P	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
P	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Q	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
R	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
S	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
S	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
T	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
U	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
U	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
V	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
W	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
W	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
W	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
X	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	On site	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
Z	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AA	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AB	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BA	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
AC	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BB	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
BB	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AD	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BC	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	On site	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
AE	On site	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
BD	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AF	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BE	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn
BE	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BE	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn
BE	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn
BE	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn
AG	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AG	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AG	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
BF	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn

ID	Location	Type of water feature	Ground level	Permanence	Name
AH	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
BG	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Weiris Burn**
AI	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
BH	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Coe Burn**
AJ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AJ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AJ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AJ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AJ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AJ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AJ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AJ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
BI	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**

ID	Location	Type of water feature	Ground level	Permanence	Name
AK	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
AK	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AK	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AK	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AK	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AK	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
BJ	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
AL	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BK	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
AM	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bog Burn
BL	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
AN	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bog Burn
BM	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn

ID	Location	Type of water feature	Ground level	Permanence	Name
AO	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AO	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AO	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AO	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AO	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AO	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
BN	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AP	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BO	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AQ	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AR	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AS	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AT	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
AU	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AV	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AW	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AX	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
AY	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Coe Burn**
AZ	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Coe Burn**
46	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
BP	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
Y	2m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
47	2m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Coe Burn
BR	2m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BS	3m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
48	4m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Coe Burn

ID	Location	Type of water feature	Ground level	Permanence	Name
49	5m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
50	6m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BT	6m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BU	7m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
BV	7m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BW	9m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
BW	10m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BX	11m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BW	12m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
51	12m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Coe Burn
BY	15m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
AX	17m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
52	17m SE	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
P	18m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BZ	18m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AX	18m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
CA	18m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
55	20m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cruick Water
BQ	20m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
56	21m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
CB	22m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
57	28m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
CC	28m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Y	31m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
58	31m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cruick Water
59	34m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cruick Water

ID	Location	Type of water feature	Ground level	Permanence	Name
CD	34m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CE	34m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
CF	36m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CG	39m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CH	39m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CI	40m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
60	43m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
CJ	43m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
CJ	43m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
CK	43m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CL	45m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
61	45m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
CM	48m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
CN	49m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CO	52m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CP	52m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
63	52m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
CQ	53m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CR	55m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CS	56m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CT	57m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
CJ	57m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
CJ	57m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
CU	58m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Weiris Burn
CV	58m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CW	59m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
AG	59m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
S	60m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
CU	62m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn
64	64m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
CF	64m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CX	65m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CY	65m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CZ	68m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DA	69m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DB	70m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn
DC	72m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CU	73m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
65	74m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
CU	76m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DD	76m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CW	82m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
DE	84m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DF	85m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CU	87m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
66	88m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DE	88m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CJ	90m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
67	93m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DG	95m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DC	99m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
DH	99m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
CJ	99m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
DC	99m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
CT	102m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
69	102m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DI	103m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DJ	103m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DE	104m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DK	104m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
CT	104m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DL	105m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
70	108m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
71	108m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River South Esk
DM	109m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn

ID	Location	Type of water feature	Ground level	Permanence	Name
DE	113m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DN	114m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bog Burn
72	120m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn
DO	124m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DE	125m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DP	125m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
73	128m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Black Burn
DO	129m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DQ	133m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DR	134m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DS	135m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DT	137m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Burn
74	140m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
DU	140m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DV	145m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DW	150m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DX	150m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
76	152m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DY	152m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
78	154m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ballindarg Burn
DX	155m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
80	158m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	King's Burn
81	161m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	King's Burn
DO	167m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
82	169m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Weiris Burn
EA	171m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Weiris Burn

ID	Location	Type of water feature	Ground level	Permanence	Name
EB	171m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
83	172m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cruick Water
DP	172m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cruick Water
DO	173m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
84	173m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ballindarg Burn
DR	173m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
DO	178m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
85	180m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cruick Water
EC	180m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
ED	180m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DO	181m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
EE	181m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EF	182m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
EG	182m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DX	182m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cruick Water
86	182m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
EH	182m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DO	182m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EI	183m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
88	184m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
89	185m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bog Burn
EJ	185m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EK	185m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
EL	186m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EM	187m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
90	187m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bog Burn

ID	Location	Type of water feature	Ground level	Permanence	Name
EH	187m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
EN	189m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
EO	190m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EN	190m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Coe Burn
EP	190m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EL	191m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EG	191m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
94	193m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
EG	195m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EQ	195m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
95	195m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EQ	196m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
ER	197m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
ES	197m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
ET	199m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EU	199m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Gairie Burn
EU	199m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Roundy Burn
EV	202m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
97	203m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Coe Burn
EW	203m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EV	205m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
EX	205m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EU	205m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
EY	208m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EU	208m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EZ	208m NW	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
FA	209m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
FB	209m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
98	210m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Gairie Burn
FC	213m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
99	216m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EZ	217m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EL	219m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
FD	220m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
FD	224m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EL	226m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
FF	226m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
ES	226m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
ES	227m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
FG	228m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
FH	228m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
FI	228m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Burn
FG	230m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
100	231m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
FJ	233m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
FK	234m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
FL	236m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
FM	237m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Willie Mills Burn
FG	239m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
FN	241m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
FO	243m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
DZ	243m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	King's Burn

ID	Location	Type of water feature	Ground level	Permanence	Name
FP	247m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
102	248m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
EL	249m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EL	249m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
EG	249m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
FQ	250m NE	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

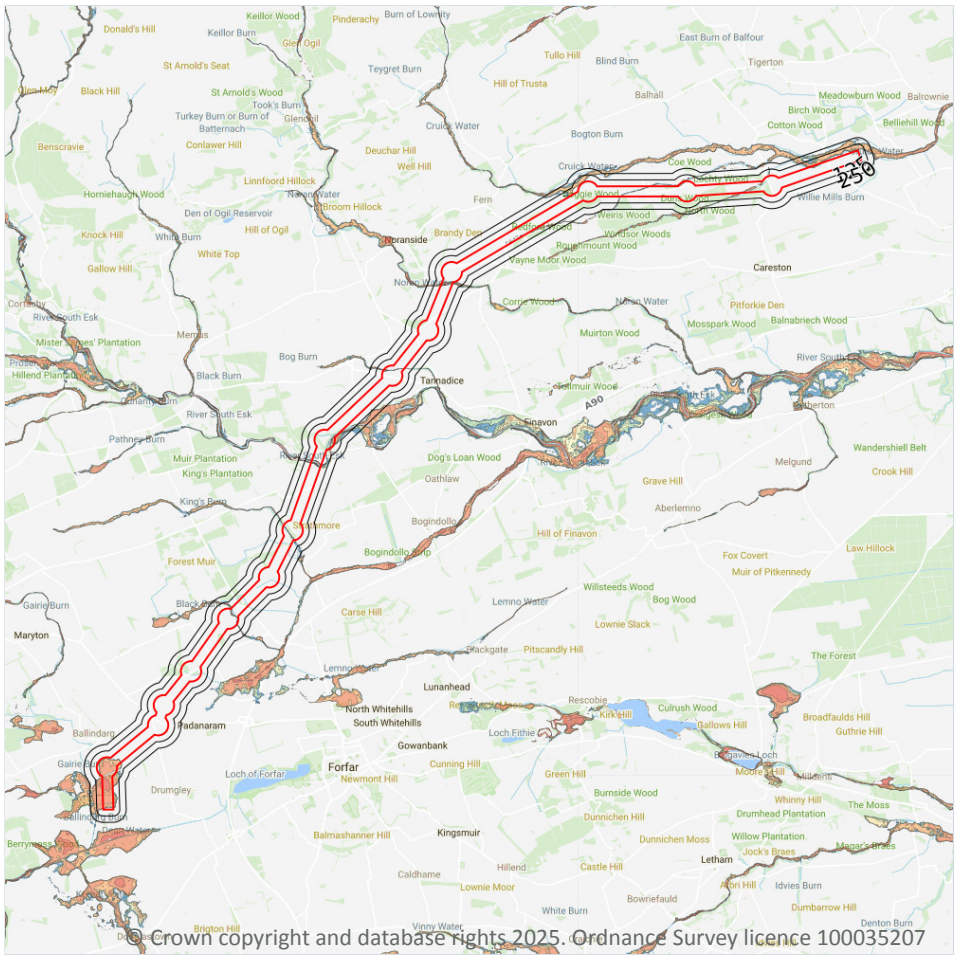
Records within 250m	**112**

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 38 >**

This data is sourced from the Ordnance Survey.

7 River flooding



7.1 River flooding

Highest risk on site	**1 in 30 year, Greater than 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

This is an assessment of flood risk for rivers in Scotland produced using modelled data, provided by Ambiental Risk Analytics. It also takes account of flood defence information provided by the Scottish Environment Protection Agency (SEPA). It shows the chance of flooding from rivers presented in the following categories:

- 1 in 30 year (3.33%)
- 1 in 100 year (1%)

- 1 in 250 year (0.4%)
- and 1 in 1,000 year (0.1%)

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Features are displayed on the River flooding map on **page 68 >**

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

8 Coastal flooding - Coastal flooding

8.1 Coastal flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

This is an assessment of coastal flood risk in Scotland produced using modelled data, provided by Ambiental Risk Analytics. It also takes account of flood defence information provided by the Scottish Environment Protection Agency (SEPA). It shows the chance of coastal flooding presented in the following categories:

- 1 in 30 year (3.33%)
- 1 in 100 year (1%)
- 1 in 250 year (0.4%)
- and 1 in 1,000 year (0.1%)

The data shown on the map shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.

9 Surface water flooding

Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

9.1 Surface water flooding

Highest risk on site	**1 in 30 year, Greater than 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on page 71 >

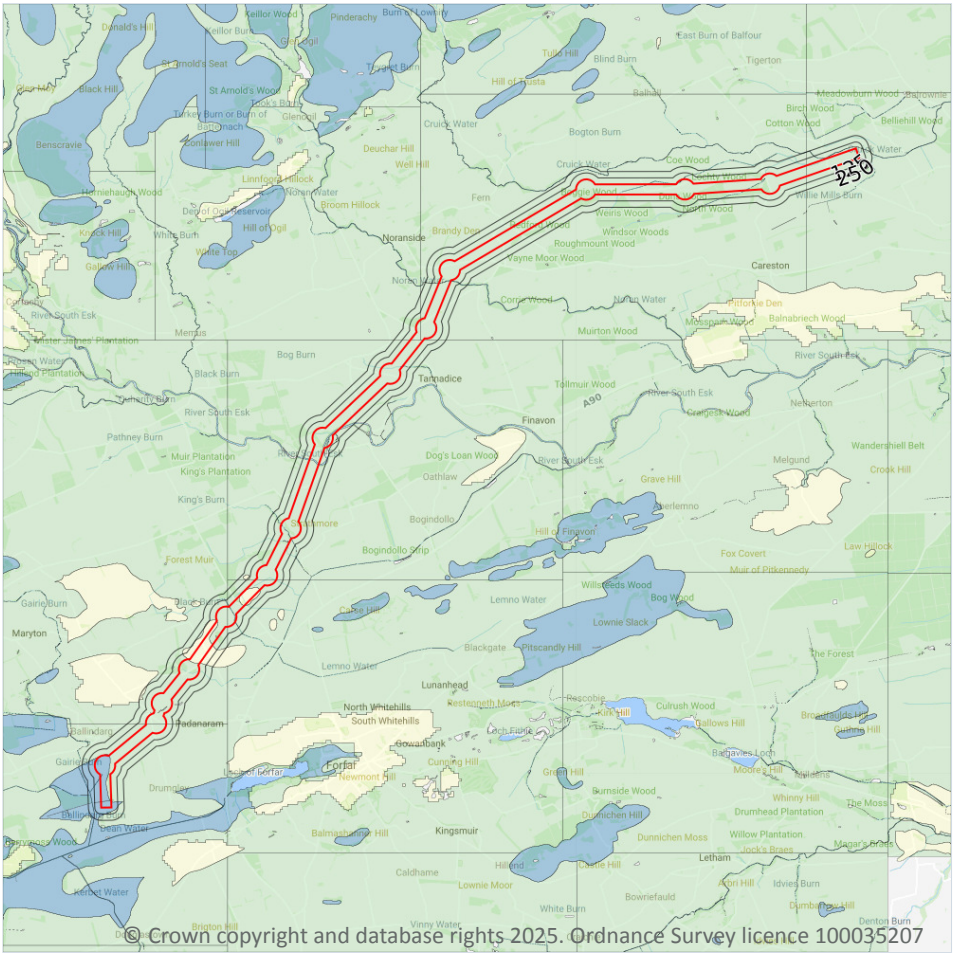
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on

a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

10 Groundwater flooding



10.1 Groundwater flooding

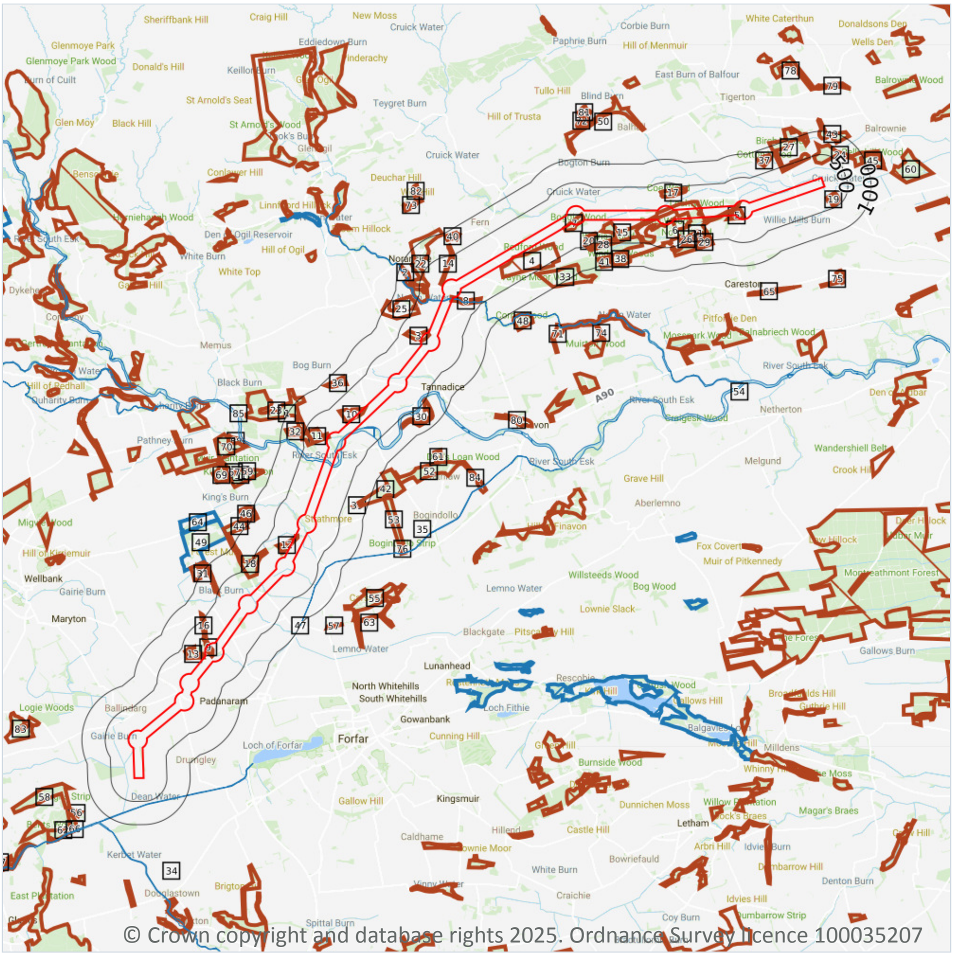
Highest risk on site	**Moderate**
Highest risk within 50m	**Moderate**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 73 >**

This data is sourced from Ambiental Risk Analytics.

11 Environmental designations



Site Outline

Search buffers in metres (m)

- Sites of Special Scientific Interest (SSSI)
- Conserved wetland sites (Ramsar sites)
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)
- Designated Ancient Woodland

11.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m **2**

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on page 74 >

ID	Location	Name	Data source
49	1118m NW	Forest Muir	NatureScot

ID	Location	Name	Data source
64	1574m NW	Forest Muir	NatureScot

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	**0**

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 Special Areas of Conservation (SAC)

Records within 2000m	**8**

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

Features are displayed on the Environmental designations map on **page 74 >**

ID	Location	Name	Features of interest	Habitat description	Data source
1	**On site**	**River South Esk**	**Atlantic salmon; Freshwater pearl mussel**	**Mixed woodland; Heath, Scrub, Maquis and Garrigue, Phygrana; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Improved grassland; Humid grassland, Mesophile grassland; Inland water bodies (Standing water, Running water); Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Coniferous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Other arable land**	**Scottish Natural Heritage**

ID	Location	Name	Features of interest	Habitat description	Data source
2	**On site**	**River South Esk**	**Atlantic salmon; Freshwater pearl mussel**	**Mixed woodland; Heath, Scrub, Maquis and Garrigue, Phygrana; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Improved grassland; Humid grassland, Mesophile grassland; Inland water bodies (Standing water, Running water); Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Coniferous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Other arable land**	**Scottish Natural Heritage**
34	558m S	River Tay	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Sea lamprey; Brook lamprey; River lamprey; Atlantic salmon; Otter	Inland water bodies (Standing water, Running water); Shingle, Sea cliffs, Islets; Bogs, Marshes, Water fringed vegetation, Fens	Scottish Natural Heritage
35	566m SE	River South Esk	Atlantic salmon; Freshwater pearl mussel	Mixed woodland; Heath, Scrub, Maquis and Garrigue, Phygrana; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Improved grassland; Humid grassland, Mesophile grassland; Inland water bodies (Standing water, Running water); Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Coniferous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Other arable land	Scottish Natural Heritage
47	1010m SE	River South Esk	Atlantic salmon; Freshwater pearl mussel	Mixed woodland; Heath, Scrub, Maquis and Garrigue, Phygrana; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Improved grassland; Humid grassland, Mesophile grassland; Inland water bodies (Standing water, Running water); Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Coniferous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Other arable land	Scottish Natural Heritage

ID	Location	Name	Features of interest	Habitat description	Data source
54	1264m SE	River South Esk	Atlantic salmon; Freshwater pearl mussel	Mixed woodland; Heath, Scrub, Maquis and Garrigue, Phygrana; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Improved grassland; Humid grassland, Mesophile grassland; Inland water bodies (Standing water, Running water); Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Coniferous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Other arable land	Scottish Natural Heritage
77	1888m SW	River Tay	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Sea lamprey; Brook lamprey; River lamprey; Atlantic salmon; Otter	Inland water bodies (Standing water, Running water); Shingle, Sea cliffs, Islets; Bogs, Marshes, Water fringed vegetation, Fens	Scottish Natural Heritage
85	1977m W	River South Esk	Atlantic salmon; Freshwater pearl mussel	Mixed woodland; Heath, Scrub, Maquis and Garrigue, Phygrana; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Improved grassland; Humid grassland, Mesophile grassland; Inland water bodies (Standing water, Running water); Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Coniferous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Other arable land	Scottish Natural Heritage

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.6 Local Nature Reserves (LNR)

Records within 2000m	0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.7 Designated Ancient Woodland

Records within 2000m	75

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 74 >**

ID	Location	Name	Woodland Type
3	**On site**	**Unknown**	**Long-Established (of plantation origin)**
4	**On site**	**Oak/redford Woods**	**Long-Established (of plantation origin)**
5	**On site**	**Unknown**	**Long-Established (of plantation origin)**
6	**On site**	**Duns Wood**	**Long-Established (of plantation origin)**
7	**On site**	**Boggie Wood**	**Long-Established (of plantation origin)**
8	**On site**	**Unknown**	**Ancient (semi-natural origin)**
9	**On site**	**Unknown**	**Long-Established (of plantation origin)**
10	**On site**	**Unknown**	**Long-Established (of plantation origin)**
11	**On site**	**Unknown**	**Long-Established (of plantation origin)**

ID	Location	Name	Woodland Type
12	**On site**	**Unknown**	**Long-Established (of plantation origin)**
13	6m NW	Unknown	Long-Established (of plantation origin)
14	39m NW	Unknown	Long-Established (of plantation origin)
15	51m S	Duns Wood	Long-Established (of plantation origin)
16	175m NW	Unknown	Long-Established (of plantation origin)
17	195m N	Coe Wood	Long-Established (of plantation origin)
18	219m NW	Forestmuir Wood	Long-Established (of plantation origin)
19	226m SE	Unknown	Long-Established (of plantation origin)
20	287m S	Duns Wood	Long-Established (of plantation origin)
21	292m S	Duns Wood	Long-Established (of plantation origin)
22	293m W	Drumcuthlaw Wood	Long-Established (of plantation origin)
23	299m W	Unknown	Long-Established (of plantation origin)
24	309m N	Keeper's/belliehill Woods	Long-Established (of plantation origin)
25	357m W	Unknown	Long-Established (of plantation origin)
26	363m S	Duns Wood	Long-Established (of plantation origin)
27	400m N	Birch Wood; The Willows	Long-Established (of plantation origin)
28	409m S	Duns Wood	Long-Established (of plantation origin)
29	434m S	Duns Wood	Long-Established (of plantation origin)
30	482m SE	Unknown	Ancient (of semi-natural origin)
31	490m W	Unknown	Long-Established (of plantation origin)
32	512m W	Unknown	Long-Established (of plantation origin)
33	557m SE	Roughmont Wood	Long-Established (of plantation origin)
36	630m NW	Unknown	Long-Established (of plantation origin)
37	637m N	Cotton Wood	Long-Established (of plantation origin)
38	660m S	Duns Wood	Long-Established (of plantation origin)
39	708m E	Unknown	Long-Established (of plantation origin)
40	755m NW	Unknown	Long-Established (of plantation origin)
41	796m S	Unknown	Long-Established (of plantation origin)

ID	Location	Name	Woodland Type
42	799m E	Unknown	Long-Established (of plantation origin)
43	819m NE	Burnside Wood	Long-Established (of plantation origin)
44	861m W	Forestmuir Wood	Long-Established (of plantation origin)
45	934m E	Keeper's/belliehill Woods	Long-Established (of plantation origin)
46	977m W	Forestmuir Wood	Long-Established (of plantation origin)
48	1112m SE	Corrie Wood	Long-Established (of plantation origin)
50	1128m N	Unknown	Long-Established (of plantation origin)
51	1151m W	King's Plantation	Long-Established (of plantation origin)
52	1199m SE	Oathlaw Wood/	Long-Established (of plantation origin)
53	1263m E	Bogindollo Strip	Long-Established (of plantation origin)
55	1337m SE	Unknown	Long-Established (of plantation origin)
56	1347m SW	Berrymoss Wood	Long-Established (of plantation origin)
57	1371m SE	Unknown	Long-Established (of plantation origin)
58	1384m W	North Warren Plantation	Long-Established (of plantation origin)
59	1400m W	King's Plantation	Long-Established (of plantation origin)
60	1477m E	Little Brechin Wood	Long-Established (of plantation origin)
61	1482m SE	Oathlaw Wood/	Long-Established (of plantation origin)
62	1559m SW	Bents Wood	Long-Established (of plantation origin)
63	1560m SE	Unknown	Long-Established (of plantation origin)
65	1589m S	Craigend Wood	Ancient (of semi-natural origin)
66	1614m SW	Bents Wood	Long-Established (of plantation origin)
67	1670m NW	King's Plantation	Long-Established (of plantation origin)
68	1675m W	Unknown	Long-Established (of plantation origin)
69	1684m NW	King's Plantation	Long-Established (of plantation origin)
70	1689m W	Unknown	Long-Established (of plantation origin)
71	1711m SE	Muirton Wood	Long-Established (of plantation origin)
72	1715m N	Unknown	Long-Established (of plantation origin)
73	1734m NW	Unknown	Long-Established (of plantation origin)

ID	Location	Name	Woodland Type
74	1804m SE	Muirton Wood	Long-Established (of plantation origin)
75	1811m S	Unknown	Long-Established (of plantation origin)
76	1835m E	Bogindollo Strip	Long-Established (of plantation origin)
78	1909m N	Unknown	Long-Established (of plantation origin)
79	1913m N	Unknown	Long-Established (of plantation origin)
80	1917m SE	Unknown	Long-Established (of plantation origin)
81	1920m N	Unknown	Long-Established (of plantation origin)
82	1934m N	Unknown	Long-Established (of plantation origin)
83	1952m W	Logie Woods	Long-Established (of plantation origin)
84	1953m SE	Oathlaw Wood/	Long-Established (of plantation origin)

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

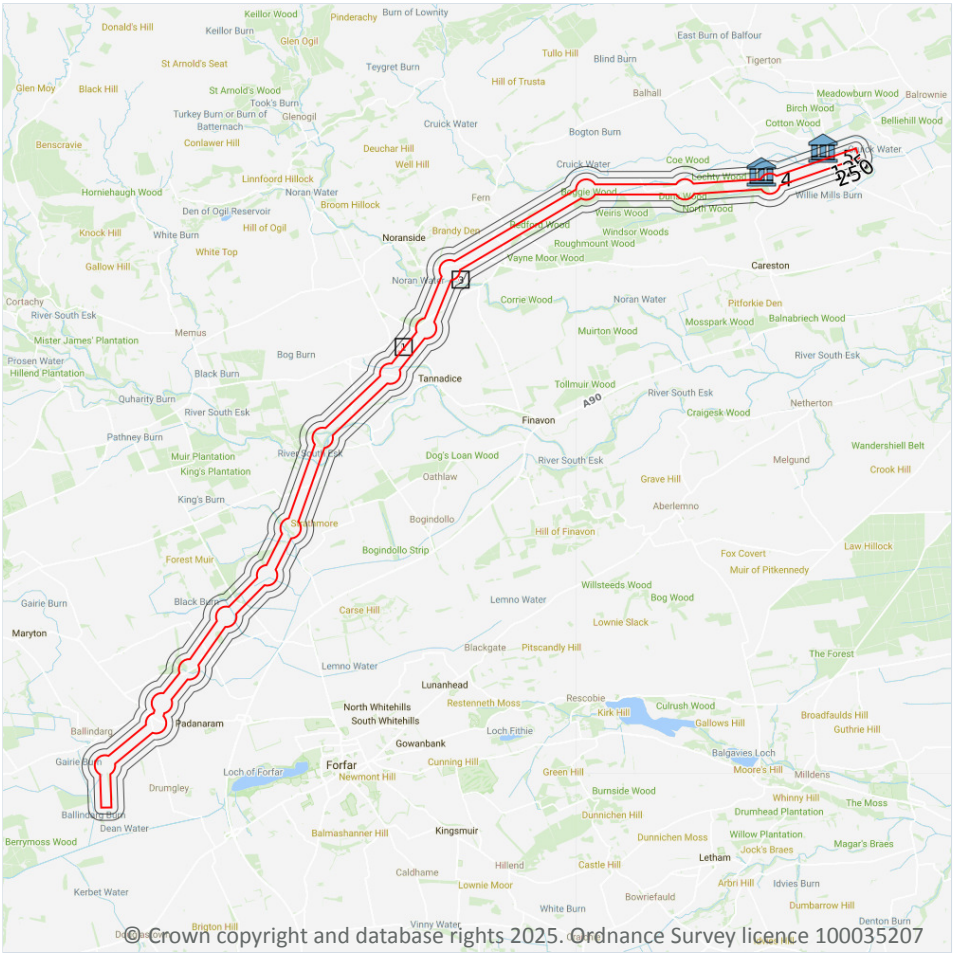
11.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

12 Visual and cultural designations



- Site Outline

Search buffers in metres (m)

- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

12.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

12.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

12.4 Listed Buildings

Records within 250m	2

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 83 >**

ID	Location	Name	Grade	Reference Number	Listed date
4	84m NW	Lochty Free Church, Angus	C	351700	15/01/1980
5	209m N	Blackhall Cornmill, Angus	B	351701	11/06/1971

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.6 Scheduled Ancient Monuments

Records within 250m	3

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

Features are displayed on the Visual and cultural designations map on **page 83 >**

ID	Location	Ancient monument name	Reference number
1	**On site**	**Baldoukie,souterrains 250m NE of**	**-**
2	16m NW	Law of Baldoukie,barrow 140m E of Baldoukie Farm	-
3	48m SE	Wellford,enclosure 350m W of	-

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

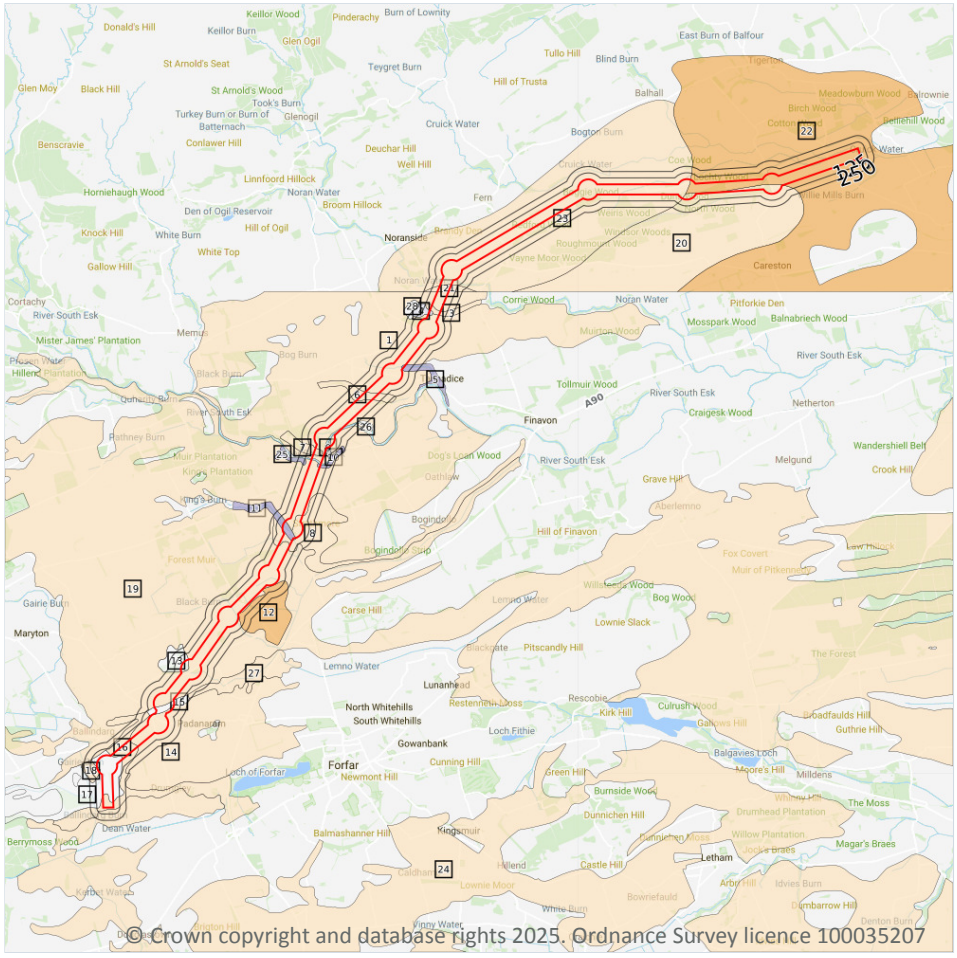
12.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

13 Agricultural designations



13.1 Agricultural Land Classification

Records within 250m	27

Classification of the quality of agricultural land taking into consideration multiple factors inclusing climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

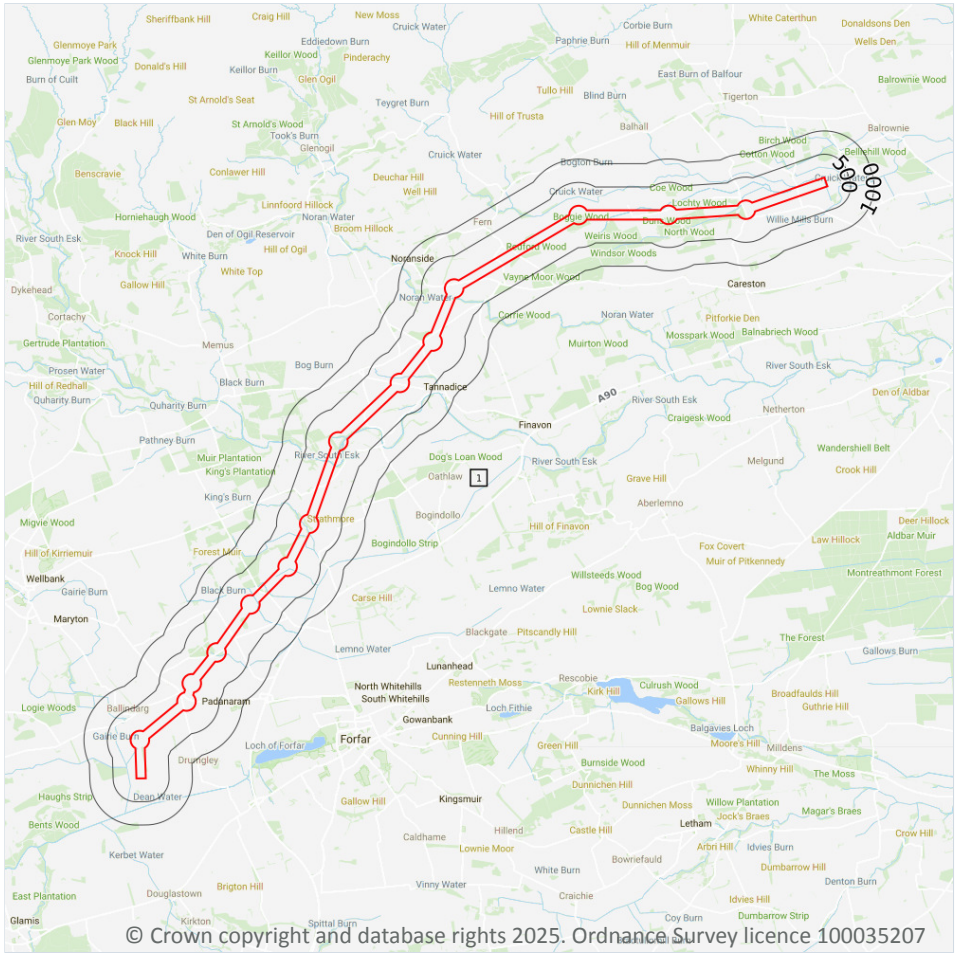
Features are displayed on the Agricultural designations map on **page 86 >**

ID	Location	Classification	Description
1	**On site**	**Grade 3.1**	**Land Suited to Arable Cropping**
3	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
4	**On site**	**Grade 5.2**	**Land Suited only to Improved Grassland and Rough Grazings**

ID	Location	Classification	Description
5	**On site**	**Grade 6.1**	**Land Suited only to Improved Grassland and Rough Grazings**
6	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
7	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
8	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
9	**On site**	**Grade 3.1**	**Land Suited to Arable Cropping**
10	**On site**	**Grade 6.1**	**Land Suited only to Improved Grassland and Rough Grazings**
11	**On site**	**Grade 6.1**	**Land Suited only to Improved Grassland and Rough Grazings**
12	**On site**	**Grade 2**	**Land Suited to Arable Cropping**
13	**On site**	**Grade 4.2**	**Land Suited to Arable Cropping**
14	**On site**	**Grade 3.1**	**Land Suited to Arable Cropping**
15	**On site**	**Grade 4.2**	**Land Suited to Arable Cropping**
16	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
17	**On site**	**Grade 4.2**	**Land Suited to Arable Cropping**
18	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
19	**On site**	**Grade 3.1**	**Land Suited to Arable Cropping**
20	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
21	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
22	**On site**	**Grade 2**	**Land Suited to Arable Cropping**
23	**On site**	**Grade 3.1**	**Land Suited to Arable Cropping**
24	34m S	Grade 3.1	Land Suited to Arable Cropping
25	84m W	Grade 6.1	Land Suited only to Improved Grassland and Rough Grazings
26	139m SE	Grade 3.1	Land Suited to Arable Cropping
27	160m SE	Grade 3.2	Land Suited to Arable Cropping
28	167m NW	Grade 4.1	Land Suited to Arable Cropping

This data is sourced from the James Hutton Institute.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 88 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	No coverage	No coverage	No coverage	NoCov

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m	0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m	0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.