Scottish and Southern Electricity Networks (SSEN)

KINTORE TO TEALING 400KV OHL – SECTION E

Geo-environmental Preliminary Risk Assessment

UK0040111.5101 /002
JULY 2025

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UK0040111.5101

PROJECT NO. UK0040111.5101

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EXECUTIVE SUMMARY

WSP UK Ltd (WSP) was commissioned by SSEN (the 'Client') to undertake a Phase 1 Geo-environmental Preliminary Risk Assessment (PRA) for Section E of the proposed Kintore to Tealing 400 kV Overhead Line (OHL) located between Fetteresso and Nether Park (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 occupied by grass filled agricultural land, with major and minor roads crossing in several places.

Historical maps indicate that the Study Area has been predominantly undeveloped since the first available map edition (1864) with some localised historical industrial land uses on and near the Study Area.

The Study Area is underlain by Alluvium, Glacial Deposits, Peat and Banchory Till Formation. 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 low productive aquifer.

Onsite surface water features include the Cowie water (between Hill of Three Stones and West Kaim Hillock) and the River Dee (north of the Kirkton of Durries), classified to have an overall water quality of 'High' and 'Moderate' respectively by SEPA.

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 SSEN (the 'Client') to undertake a Phase 1 Geo-environmental Preliminary Risk Assessment (PRA) for Section E of the proposed Kintore to Tealing 400 kV Overhead Line (OHL) located between Fetteresso and Nether Park (the 'Study Area').

The Study Area boundary follows a linear corridor from Elf Hill to Kirkton of Durries, which is approximately 1.7km northwest of Woodlands of Durries crossing various geographical features, including grassland, woodlands, forests, hills, burns (streams), and settlements.

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 Study Area 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 20 February 2025, available online http://mapapps2.bgs.ac.uk/geoindex/home.html;
- Groundsure report reference GS-MVM-R6V-JMD-114 and GS-43U-J4A-2JV-9FR (historical maps) dated 17 February 2025 (presented as **Appendix B.1**);
- Mining Remediation Authority Map viewer accessed on 20 February 2025 through https://datamine-cauk.hub.arcgis.com/;
- Online environmental data available on the Scotland Environment website access 20 February 2025 Map | Scotland's environment web ;
- Scottish Environment Protection Agency (SEPA) Water Environment Hub accessed on 20 February 2025 through Water Classification Hub (sepa.org.uk);
- UK Radon interactive map viewer accessed on 21 February 2025 http://www.ukradon.org/information/ukmaps;
- Zetica UXO Assessment Risk Maps accessed on 21 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 centred near Woodland of Durries, Aberdeenshire, Scotland, AB31 6AD.
National Grid Reference	Easting: 378944, Northing: 791482 (approximate Study Area centre)
Study Area Setting and Surrounding Area	The majority of Study Area is presently occupied by grass filled agricultural land, with major and minor roads crossing in several places.
Study Area Size (approximate)	331 Hectares

2.2 STUDY AREA DESCRIPTION

The Study Area boundary follows a linear corridor from Elf Hill to Kirkton of Durris. The Study Area boundary is flanked by forests and woods, including Fetteresso Forest, Durris Forest, and Strathgyie Wood. Key water bodies along the route include the River Dee, Cowie Water and several small burns. Additionally, the pathway intersects major roads such as North Deeside Road (A93), South Deeside Road (B9077) and Slug Road (A957).

2.2.1 OFF-SITE

The Study Area is bordered to the north by woods and North Deeside Road (A93), to the east by woodlands, to the south by Elf Hill, and to the west by Slug Road (A957) and Fetteresso Forest.

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) 1:10,000 scale (Sheet NO79NE Solid and Drift edition) geological maps, 1:50,000 scale (Sheet 66E - Banchory, 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 Study Area is likely underlain by Made Ground where several roads cross the Study Area at various locations.	
Made Ground (Undivided)	Unknown		
Superficials			
Lochton Sand and Gravel Formation	Unknown	Mapping indicates this superficial deposit is present at northern most of the Study Area, near north of the River Dee and also at south of the River Dee.	Sand and gravel composed predominantly of clasts of Neoproterozoic metamorphic rocks and Caledonian igneous rocks.
Alluvium	Unknown	Mapping indicates this superficial deposit is present in between Lochton Sand and Gravel Formation, near River Dee. It is also present in patch near north of the Balladrum Wood and north of the Target Wood.	Soft to firm consolidated, compressible silty clay.
Banchory Till Formation	Unknown	The mapping indicates that this superficial deposit is present at Kirkton of Durries and extends north to Balladrum Wood. It is also found between Balladrum Wood and Target Wood, and once again, near the west of Strathgyle.	Gravelly and sandy diamicton composed principally of decomposed Neoproterozoic metamorphic rocks and Caledonian igneous rocks.

Geological Unit	Estimated Thickness (based on historical boreholes)	Location along the route	Description
		Once again, it is present in between near northeast of the Hill of Three Stones and Wood of Mergie.	
Peat	Unknown	Mapping indicates this superficial deposit is present in west of Strathgyle and extended till south of the Blackburn Moss.	Partially decomposed mass of semi-carbonized vegetation.
Hummocky (Moundy) Glacial Deposits	Unknown	Mapping indicates this superficial deposit is present near northeast of the Hill of Three Stones.	Lithologically diverse and complex glacial deposits that have characteristic moundy topographic form.
Bedrock			
Crathes Pluton	Unknown	Mapping indicates this bedrock deposits is present at northern most part of the Study Area, near River Dee	Granodiorite.
Queen's Hill Formation	Unknown	Mapping indicates this bedrock deposits is present in between the River Dee and north of the target Wood.	Mixed psammite, semipelite and pelite, with rare beds of calc-silicate rock.
Water of Dye Granite (Mount Battock Pluton)	Unknown	Mapping indicates this bedrock deposits is present in at Target Wood and extend till north of the Roadside Cottage.	Granite.
Glen Effock Schist Formation	Unknown	Mapping indicates this bedrock deposits is present at Hill of Three Stones and extend till north of the Smiddy Cottage.	Dominant semipelite, but with considerable psammite and pelite.
Glen Lethnot Grit Formation	Unknown	Mapping indicates this bedrock deposits is present at west of the Mergie House and extend till Elf Hill.	Mixed psammite, semipelite and pelite.

BGS Borehole Logs

Two BGS borehole logs NO79NE6 (https://api.bgs.ac.uk/sobi-scans/) and NO79SE5 (https://api.bgs.ac.uk/sobi-scans/v1/) are recorded on site, near Kirkton of Durries and near east of the Calladrum Wood respectively.

The geology recorded from the boreholes is summarised as below:

Table 2-3 – Summary of Borehole Geology

Borehole ID		Geological Unit	Thickness in m (based on historical boreholes)	Description
NO79NE6 (On site, near Kirkton of Durries)		Topsoil	0.3	**Soil:** sand, stony.
		Fluvioglacial sand and gravel	0.7	**Gravel:** sandier with depth; a bed of slightly cohesive coarse sand from 0.9 to about 1.2m Gravel: coarse and fine, with some boulders, subangular to round, granite and dioritic rock, schist and quartzite. Sand: coarse and medium with some fine angular to subrounded quartz, lithic fragment and feldspar. Fines: disseminated silt and clay, moderate yellowish brown.
		3.0		**Sand:** hard packed layer of cobbles and boulders from 1.9 to 2.3m Gravel: fine with some coarse, some cobble and boulder, subangular to rounded granitic and dioritic rocks, schist and quartzite with some vein-quartz. Sand: medium and coarse with fine, angular to subangular, quartz and feldspar, with lithic fragments. Fines: biding deposit near the top and disseminated, greyish yellowish brown.
		Till	2.8+	**Diamicton:** sandy silty clay, stiff to hard, cobbles and boulders in top 0.3m. Passes down into stony silty clay, with occasional angular to subrounded cobbles and boulders; moderate yellowish brown.
NO79SE5 (155m North of the Study	Topsoil	0.3		**Soil:** sand, stony.
	Glacial sand and gravel	1.0		**Gravel**: cobbles and boulders up to 80cm, some coarse and fine; subrounded to subangular

Borehole ID		Geological Unit	Thickness in m (based on historical boreholes)	Description
Area, near east of the Calladrum Wood)				granodiorite, granite, psammite and semipelite. Sand: medium and coarse with some fine, subangular quartz and rock. Fines: silt, disseminated, strong brown.
	Till	0.9		**Diamicton:** sandy clay, unstratified, subrounded boulders up to 1.5m of semipelite and granodiorite, cobbles of highly weathered gabbro and pebbles of granite, schist and psammite; pale yellowish brown.
	Flow-till	0.6		**Diamicton:** clayey sand, with fine pebbles and sparse ultrabasic cobbles.
	Till	0.5+		**Diamicton:** sandy clay, unstratified, subrounded boulders up to 1.5m, sparse highly weathered pebbles of coarse-grained ultra basic rock; moderate brown to moderate yellowish brown. Pit terminated on boulders of granodiorite, hard pelitic schist and leucocractic coarse-grained granite.

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 2-4 – Groundwater Quality Summary

Waterbody Name	Type	Local Authority	Overall Classification	Comments
Peterculter (ID: 150661)	Bedrock	Aberdeen City, Aberdeenshire	Good	2023 Classification
Peterculter (ID: 150665)	Bedrock	Aberdeen City, Aberdeenshire	Good	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 low productive aquifer (Unnamed Igneous Intrusion - Ordovician To Silurian, Unnamed Igneous Intrusion – Silurian to Early Devonian, Argyll Group and Southern Highland 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 2-5 – Groundwater Vulnerability Summary

Rock Unit	Character	Flow Mechanism	Summary
Unnamed Igneous Intrusion, Ordovician to Silurian	Low productive aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs
Southern Highland Group	Low productive aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs
Unnamed Igneous Intrusion, Late Silurian to early Devonian	Low productive aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs
Argyll group	Low productive aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs

2.7 WATER ABSTRACTIONS

WSP contacted the Aberdeenshire Council and SEPA via email on 24th February 2025 regarding water abstraction records held relating to the Study Area. At the time of writing, Aberdeenshire Council has responded on 18th March 2025. The information is summarised as below.

- A total of fourteen private water supplies have been identified within a 1km radius of the Study Area, of which two are located within a 250m buffer.

2.8 HYDROLOGY

According to the Groundsure report, the nearest surface water feature are as follows:

- Cowie water (ID: 23257) passes through the Study Area, between Hill of Three Stones and West Kaim Hillock, is classified to have an overall water quality of 'High' in the year 2023 according to SEPA's Water Classification Hub.
- River Dee (ID: 23262) passes through the Study Area, near north of the Kirkton of Durries, is classified to have an overall water quality of 'Moderate' in the year 2023 according to SEPA's Water Classification Hub.
- The Burn of Sheeoch and Strathie Burn intersect within the Study Area, near the western edge of Callandrum Wood. Both burns are unclassified by SEPA.

2.9 FLOODING

According to the Groundsure Report, the Study Area has negligible risk of river flooding and surface water flooding. The highest risk is reported in the uppermost part of the Study Area, near the north of Kirkton of Durries, where the chances of river flooding are reported to be greater than 1.0m (1 in 30 years - 3.33%). The risk from coastal flooding is considered to be negligible within the Study Area. The risk from the groundwater flooding is considered to be low 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 2-6 – Sensitive Surrounding Land Uses

Type	Description
Special Areas of Conservation	River Dee is present on site as well as off site.
Designated ancient woodland	Wood of Mergie, Funach/free Church Wood and Unknown Woods are recorded to be present on site as well as off site.
Listed Buildings	West Lodge, Park House, Aberdeenshire, near north of River Dee. Durries Parish Kirk, Aberdeenshire, near Kirkton of Durries St Comgall's Church, Kirkton of Durries, Aberdeenshire, near Kirkton of Durries Mill of Kirkton, Aberdeenshire, near Kirkton of Durries Churchyard with Fraser Burial Aisle, St Comgall's Church, Kirkton of Durries, Aberdeenshire, near Kirkton of Durries Old Bridge of Durries, Aberdeenshire, near Kirkton of Durries

Type	Description
Registered Parks and Gardens	Park House located approximately 15m north of the Study Area, near River Dee.

2.11 ENVIRONMENTAL SENSITIVITY

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

- Presence of 'High to moderate' quality surface water feature within 250m;
- Presence of a 'low' quality moderately productive bedrock aquifer underlying the Study Area;
- Absence of any sensitive residential land uses within 250m; and,
- Presence of designated SAC, ancient woodland, scheduled ancient monuments and, registered parks and Gardens on and off Study Area.

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 B.1,** and pertinent findings are summarised below.

3.1 ONSITE

3.1.1 ONSITE HISTORICAL MAPPING

The earliest available mapping (1864) shows the Study Area to be undeveloped land. Significant development was noted on site in 1887 map edition:

- Burn of Sheeoch pass through the Study Area, near Callandrum Wood (1887)
- Mill Haugh is present on the site, near the north of the present Cowie water (1887).
- River Dee passes through the Study Area, near north of Kirkton of Durries (1887).
- An unspecified tank on the site, near Free Church Wood (1902).
- Cowie water passes through the Study Area, near between Hill of Three Stones and West Kaim Hillock (1927-1928)
- Unspecified Quarry, near northeast of the Hill of Three Stones (1927-1928).
- Railway track passes though the Study Area, near southwest Kirkton of Durries (1968).
- Slug Road passes through the Study Area, near Craigneil (2001).
- Sand and Gravel Quarry located on site, near north of the River Dee (2010).
- The Study Area remains agricultural setting 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 Ground Workings located on site circa 1956;
- Unspecified Heaps located on site circa 1969 – 1987, circa 1902, circa 1904 and circa 1899;
- Unspecified Quarries located on site circa 1927 – 1981;
- Rifle Ranges located on site circa 1904 – 1923, circa 1956, circa 1902, circa 1904, circa 1928 and circa 1899; and
- Unspecified Tanks located on site circa 1902, circa 1899, circa 1956, circa 1928, circa 1904 and circa 1968.

3.2 OFFSITE

3.2.1 OFFSITE HISTORICAL MAPPING

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

- Corn Mill and West Park located approximately 500m and 200m west of the Study Area respectively, near Crathes (1899-1902).
- Nether Park and Church located approximately 450m and 200m east of the Study Area, near north of the Kirkton orf Durries (1899-1902).
- Gravel pit located approximately 50m west of the Study Area, near north of the River Dee (1928).
- Road and Railway line passes through the upper most part of the Study Area, near north of the River Dee (1899-1902) and Disused railway in 1969.

- Post office, School and Sawmill are located approximately 300m, 400m and 150m north of the Study Area respectively, near Kirkton of Durries (1887).
- Old Quarry located approximately 500m east of the Study Area, near Kirkton of Durries (1899-1904).
- Gravel pit located approximately 200m east of the Study Area, near Craigneil (1902-1904).

3.2.2 OFFSITE 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):

- Multiple Gravel Pits were located:
  - 37m north circa 1928 – 1956,
  - 101m northwest circa 1928 – 1956, and:
  - 182m south circa 1902 – 1927.
- Multiple Refuse Heaps were recorded across different locations including:
  - 48m north circa 1904,
  - 93m north circa 1956,
  - 160m north circa 1956,
  - 379m northwest circa 1956, and;
  - 383m north circa 1956.
- Multiple Unspecified Pits were recorded as:
  - 55m south circa 1981,
  - 93m north circa 1956,
  - 116m north circa 1923,
  - 179m south circa 1981,
  - 212m south circa 1981, and;
  - 345m south circa 1865.
- Unspecified Quarries located as:
  - 66m south circa 1927.
- Multiple Sawmills were noted as:
  - 138m north circa 1887,
  - 141m north circa 1928,
  - 142m north circa 1899,
  - 155m north circa 1902,
  - 172m north circa 1923,
  - 187m north circa 1904, and;
  - 172m north (Disused) circa 1969 – 1987.
- Several Unspecified Mills were recorded as:
  - 138m north circa 1899;

- 145m north circa 1956;
- 174m north circa 1928;
- 182m north circa 1956;
- 210m north circa 1904;
- 480m northwest circa 1904;
- 486m northwest circa 1899;
- 487m northwest circa 1956;
- 487m northwest circa 1928; and;
- 490m northwest circa 1969 – 1987.

- Rifle Ranges located as:
  - 168m north circa 1928, and
  - 180m north (Miniature) circa 1956.
- Corn Mills located as:
  - 171m north circa 1887, and;
  - 481m northwest circa 1902.
- Shale Tips recorded as:
  - 353m north circa 1902, and;
  - 354m north circa 1899.
- Police Stations located:
  - 305m north circa 1899,
  - 311m north circa 1902, and;
  - 315m north circa 1904.
- Egg Packing Stations:
  - 325m north circa 1969 – 1987.
- Unspecified Ground Workings:
  - 157m north circa 1956, and;
  - 161m north circa 1904.
- Unspecified Heaps:
  - 141m north circa 1956.
- Unspecified Tanks:
  - 131m north circa 1968.

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	18	2	28	17	See section 3
Historical Tanks	1	0	1	0	See section 3
Historical Energy Features	0	0	0	0	N/A
Historical Garages	0	0	0	0	N/A
Active or Recent Landfill	0	0	0	0	N/A
Historical Landfill Sites	0	0	0	1	A historical waste site approximately 330m east of the Study Area, near Kirkton of Durries.
Licenced Waste Sites	0	0	0	0	N/A
Historical Waste Sites	0	0	0	0	N/A
Recent Industrial Land Uses	34	2	6	0	Several Electrical features are located
Current or Recent Petrol Stations	0	0	0	0	N/A
Control of Major Accident Hazards (COMAH)	0	0	0	0	N/A
Gas pipelines	1	0	1	1	Gas pipelines identified on site running from Woodlands Wood to Calladrum Wood.
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

Groundsure Feature	On site	0-50m	50-250m	250-500m	Details
Pollution Inventory Waste Transfers	0	0	0	0	N/A
Part B Authorisations	0	0	0	0	N/A

The distance for all the features was calculated from the approximate centre of the Study Area at co-ordinate (378944, 791482).
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 Study Area lies within a range of 3% - 5% of homes are estimated to be at or above the Action level. The maximum radon potential ranges are less than 1%, between 1% - 3%, between 5% - 10% and greater than 30%. 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 historical land use. (Made Ground, railway tracks, quarries, Mill Haugh 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), polychlorinated biphenyls (PCBs), 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 a possible divestment for a proposed industrial development, 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 (Southern Highland Group, Argyll group and unnamed Igneous Intrusions);
- Surface water (River Dee and Cowie River).

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 historical development of roads. Historical and current uses – Unspecified Quarry, Unspecified tank, Railway track, Sand and Gravel Quarry. 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 potentially 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 foundations. 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 assumed continued commercial / industrial 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:

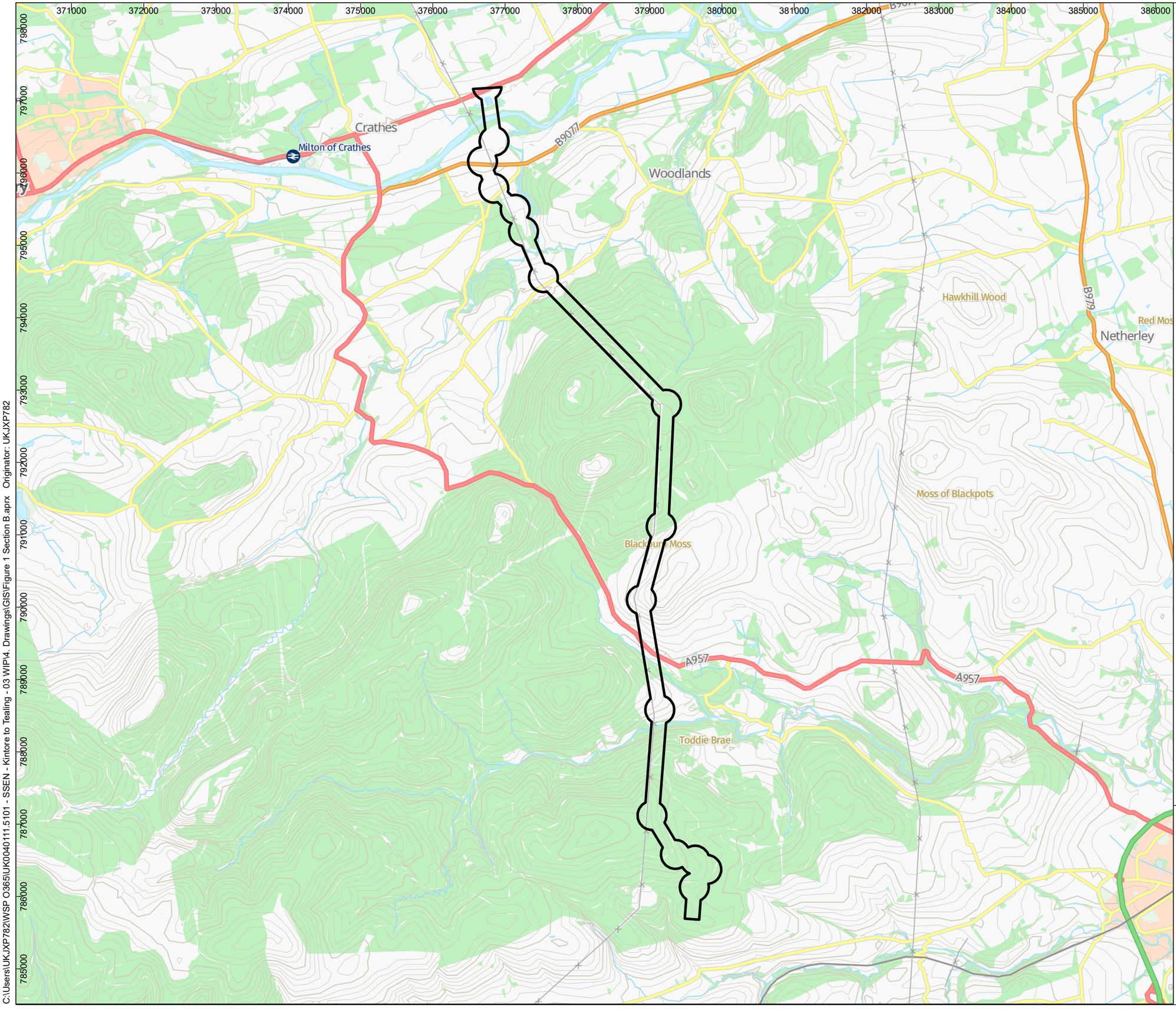
- Extent and characteristics of contamination on soils and groundwater;
- Risks to future site users and the wider environment;
- Any resultant liabilities to the vendor.

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 /002). Under no circumstances is it to be used as an independent document.

Appendix A

FIGURES



Key

Section E

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

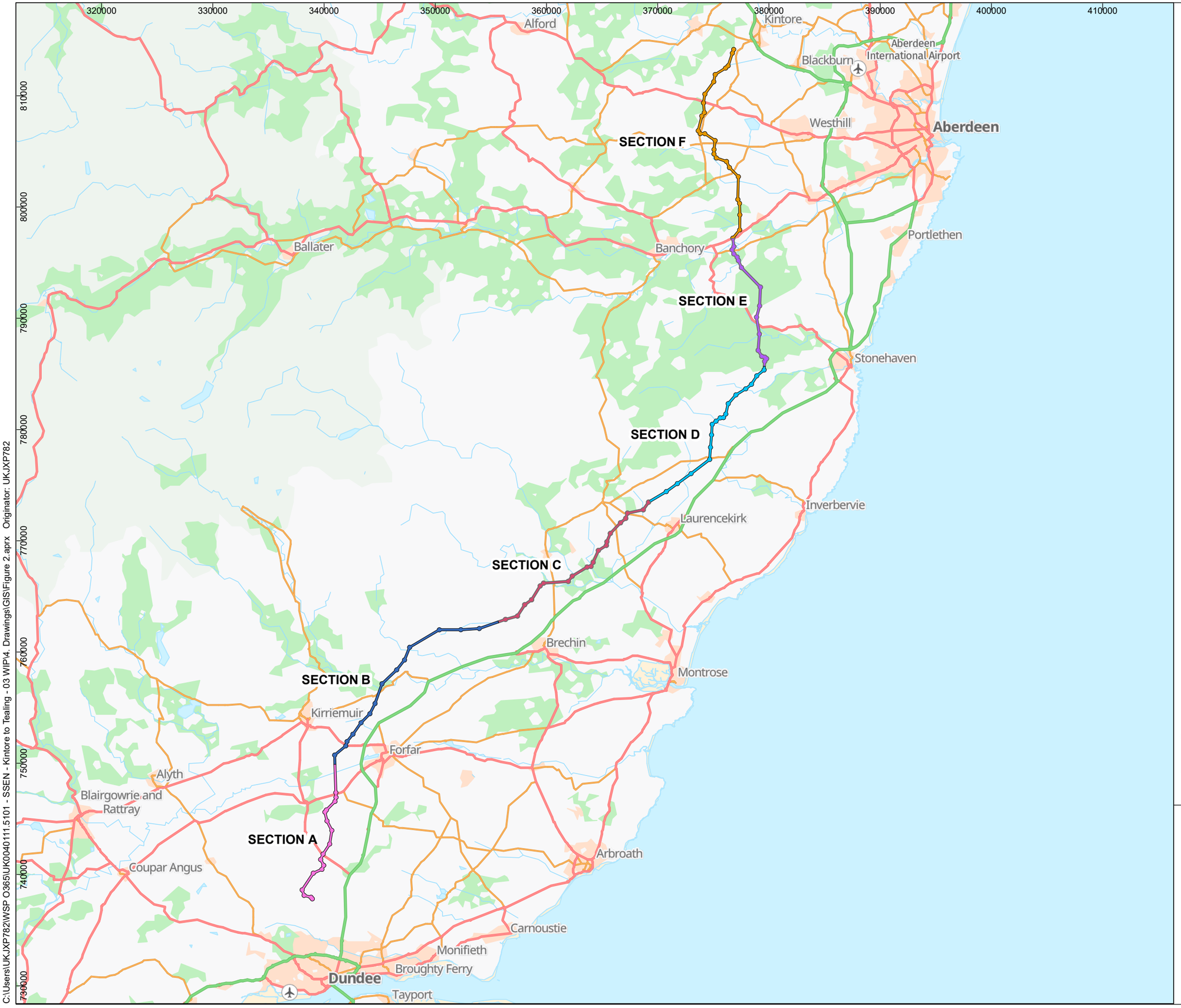
Scale at A3: 1:50,000

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 B.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 E

Order Details

Date: 04/09/2025

Your ref: P110439UK001

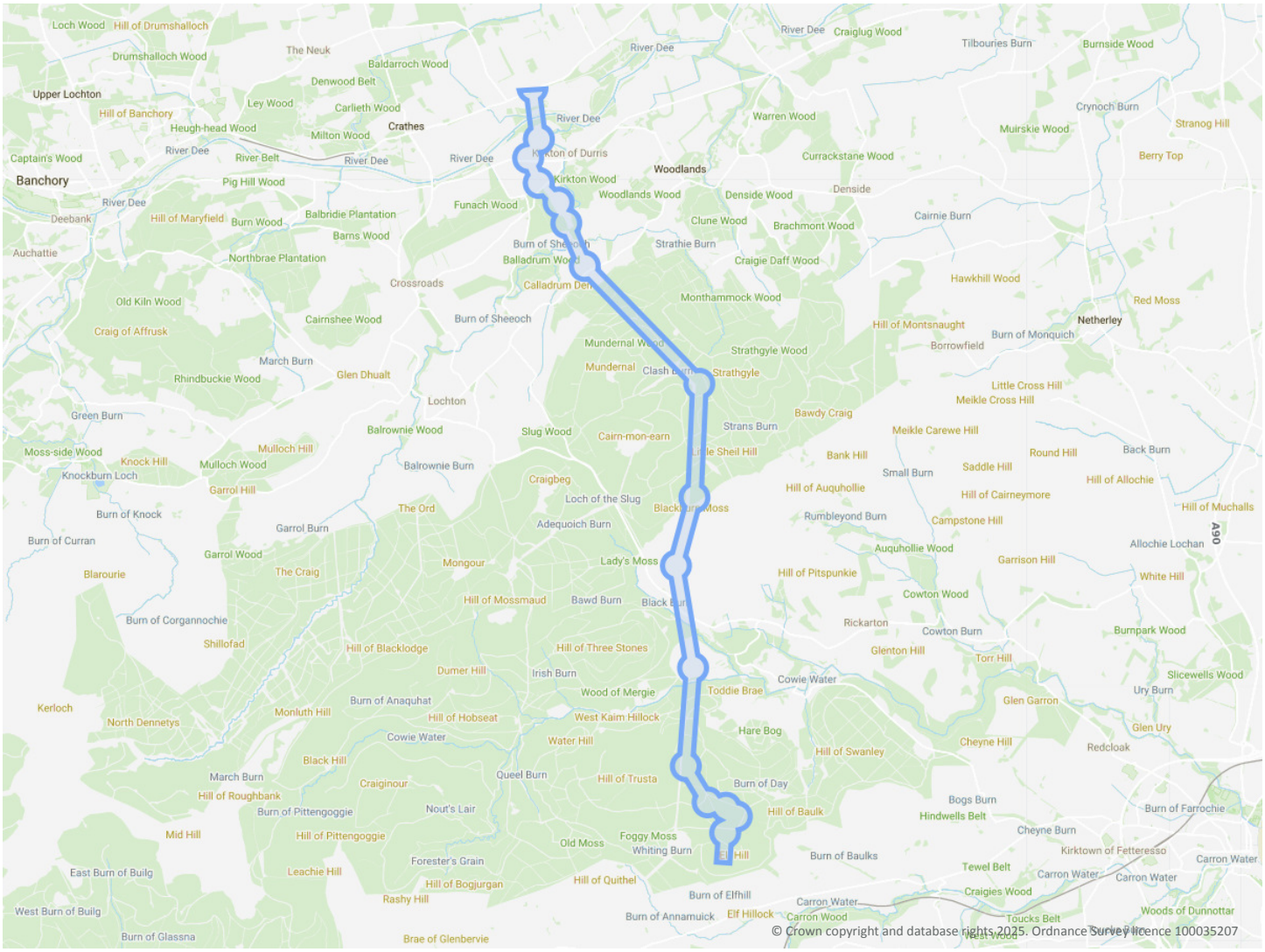
Our Ref: WSP-B4R-GQ5-G56-KNN

Site Details

Location: 378499 791482

Area: 331.82 ha

Authority: Aberdeenshire Council ↗



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

Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
11 >	1.1 >	Historical industrial land uses >	18	2	28	17	-
14 >	1.2 >	Historical tanks >	1	0	1	0	-
14	1.3	Historical energy features	0	0	0	0	-
15	1.4	Historical petrol stations	0	0	0	0	-
15	1.5	Historical garages	0	0	0	0	-
15	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
16 >	2.1 >	Historical industrial land uses >	26	4	35	26	-
20 >	2.2 >	Historical tanks >	1	0	1	0	-
20	2.3	Historical energy features	0	0	0	0	-
20	2.4	Historical petrol stations	0	0	0	0	-
21	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
22	3.1	Active or recent landfill	0	0	0	0	-
22	3.2	Historical landfill (BGS records)	0	0	0	0	-
23 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	1	-
23	3.4	Licensed waste sites	0	0	0	0	-
23	3.5	Historical waste sites	0	0	0	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
24 >	4.1 >	Recent industrial land uses >	33	2	6	-	-
27	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
27	4.3	Current or recent petrol stations	0	0	0	0	-
27	4.4	Electricity cables	0	0	0	0	-
27 >	4.5 >	Gas pipelines >	1	0	1	1	-
28	4.6	Sites determined as Contaminated Land	0	0	0	0	-
28	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-

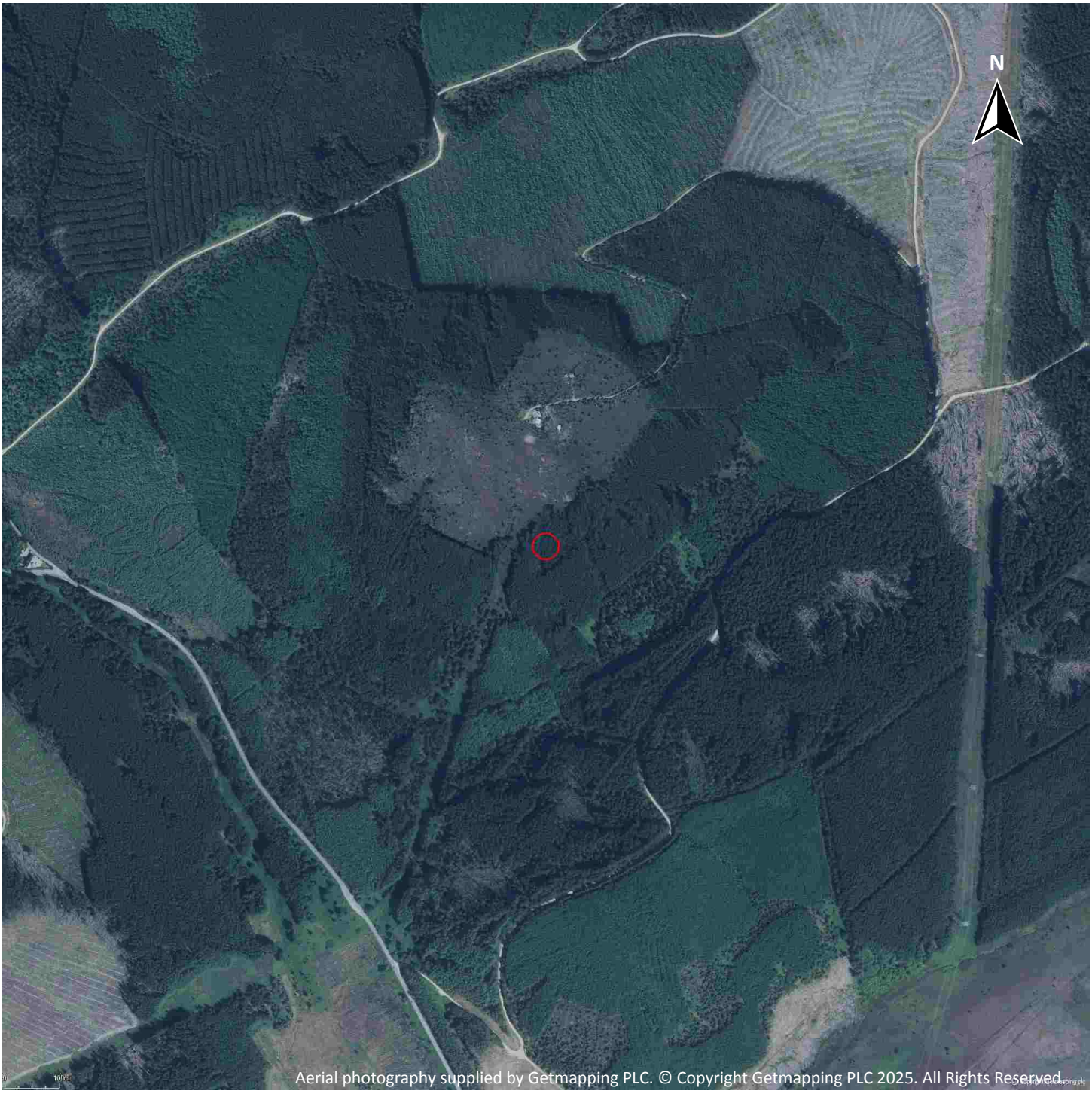
28	4.8	Regulated explosive sites	0	0	0	0	-
28	4.9	Hazardous substance storage/usage	0	0	0	0	-
29	4.10	Part A(1), IPPC and Historic IPC Authorisations	0	0	0	0	-
29	4.11	Part B Authorisations	0	0	0	0	-
29	4.12	Pollution inventory substances	0	0	0	0	-
29	4.13	Pollution inventory waste transfers	0	0	0	0	-
29	4.14	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	**Hydrogeology >**	On site	0-50m	50-250m	250-500m	500-2000m
30 >	**5.1 >**	**Superficial aquifer >**	Identified (within 500m)				
31 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
Page	Section	**Hydrology >**	On site	0-50m	50-250m	250-500m	500-2000m
33 >	**6.1 >**	**Water Network (OS MasterMap) >**	57	34	90	-	-
48 >	**6.2 >**	**Surface water features >**	1	12	43	-	-
Page	Section	**River flooding >**					
49 >	**7.1 >**	**River flooding >**	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Coastal flooding					
51	8.1	Coastal flooding	Negligible (within 50m)				
Page	Section	**Surface water flooding >**					
52 >	**9.1 >**	**Surface water flooding >**	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	**Groundwater flooding >**					
54 >	**10.1 >**	**Groundwater flooding >**	Low (within 50m)				
Page	Section	**Environmental designations >**	On site	0-50m	50-250m	250-500m	500-2000m
55 >	**11.1 >**	**Sites of Special Scientific Interest (SSSI) >**	0	0	0	0	1
56	11.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
56 >	**11.3 >**	**Special Areas of Conservation (SAC) >**	1	0	0	0	0
57	11.4	Special Protection Areas (SPA)	0	0	0	0	0
57	11.5	National Nature Reserves (NNR)	0	0	0	0	0
57	11.6	Local Nature Reserves (LNR)	0	0	0	0	0
57 >	**11.7 >**	**Designated Ancient Woodland >**	6	1	6	3	20

59	11.8	Biosphere Reserves	0	0	0	0	0
59	11.9	Forest Parks	0	0	0	0	0
59	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
60	12.1	World Heritage Sites	0	0	0	-	-
61	12.2	Area of Outstanding Natural Beauty	0	0	0	-	-
61	12.3	National Parks	0	0	0	-	-
61 >	**12.4 >**	**Listed Buildings >**	0	0	6	-	-
62	12.5	Conservation Areas	0	0	0	-	-
62	12.6	Scheduled Ancient Monuments	0	0	0	-	-
62 >	**12.7 >**	**Registered Parks and Gardens >**	0	1	0	-	-
Page	Section	**Agricultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
63 >	**13.1 >**	**Agricultural Land Classification >**	Grade 6.3 (within 250m)				
Page	Section	**Geology 1:10,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
65 >	**14.1 >**	**10k Availability >**	Identified (within 500m)				
67 >	**14.2 >**	**Artificial and made ground (10k) >**	3	0	4	3	-
69 >	**14.3 >**	**Superficial geology (10k) >**	37	3	32	43	-
74	14.4	Landslip (10k)	0	0	0	0	-
75 >	**14.5 >**	**Bedrock geology (10k) >**	17	4	7	18	-
78 >	**14.6 >**	**Bedrock faults and other linear features (10k) >**	37	5	29	57	-
Page	Section	**Geology 1:50,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
84 >	**15.1 >**	**50k Availability >**	Identified (within 500m)				
85	15.2	Artificial and made ground (50k)	0	0	0	0	-
85	15.3	Artificial ground permeability (50k)	0	0	-	-	-
86 >	**15.4 >**	**Superficial geology (50k) >**	28	2	18	29	-
90 >	**15.5 >**	**Superficial permeability (50k) >**	Identified (within 50m)				
91	15.6	Landslip (50k)	0	0	0	0	-
91	15.7	Landslip permeability (50k)	None (within 50m)				
92 >	**15.8 >**	**Bedrock geology (50k) >**	13	2	5	11	-

94 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
95 >	15.10 >	Bedrock faults and other linear features (50k) >	14	0	5	19	-
Page	Section	**Boreholes** >	On site	0-50m	50-250m	250-500m	500-2000m
97 >	16.1 >	BGS Boreholes >	1	0	1	-	-
Page	Section	**Natural ground subsidence** >					
99 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
101 >	17.2 >	Running sands >	Low (within 50m)				
103 >	17.3 >	Compressible deposits >	High (within 50m)				
105 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
107 >	17.5 >	Landslides >	Moderate (within 50m)				
109 >	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
111 >	18.1 >	BritPits >	2	0	1	2	-
113 >	18.2 >	Surface ground workings >	19	19	29	-	-
116	18.3	Underground workings	0	0	0	0	0
116	18.4	Underground mining extents	0	0	0	0	-
116	18.5	Historical Mineral Planning Areas	0	0	0	0	-
116 >	18.6 >	Non-coal mining >	3	1	1	2	4
118	18.7	JPB mining areas	None (within 0m)				
118	18.8	The Coal Authority non-coal mining	0	0	0	0	-
118	18.9	Researched mining	0	0	0	0	-
119	18.10	Mining record office plans	0	0	0	0	-
119	18.11	BGS mine plans	0	0	0	0	-
119	18.12	Coal mining	None (within 0m)				
119	18.13	Brine areas	None (within 0m)				
119	18.14	Gypsum areas	None (within 0m)				
120	18.15	Tin mining	None (within 0m)				
120	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m

121	19.1	Natural cavities	0	0	0	0	-
121	19.2	Mining cavities	0	0	0	0	0
121	19.3	Reported recent incidents	0	0	0	0	-
121	19.4	Historical incidents	0	0	0	0	-
Page	Section	**Radon** >					
123 >	**20.1** >	**Radon** >	Greater than 30% (within 0m)				
Page	Section	**Soil chemistry** >	On site	0-50m	50-250m	250-500m	500-2000m
125 >	**21.1** >	**BGS Estimated Background Soil Chemistry** >	170	36	-	-	-
132	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
133	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
134	22.1	Underground railways (London)	0	0	0	-	-
134	22.2	Underground railways (Non-London)	0	0	0	-	-
135	22.3	Railway tunnels	0	0	0	-	-
135	22.4	Historical railway and tunnel features	0	0	0	-	-
135	22.5	Royal Mail tunnels	0	0	0	-	-
135 >	**22.6** >	**Historical railways** >	7	3	1	-	-
136	22.7	Railways	0	0	0	-	-
136	22.8	Crossrail 2	0	0	0	0	-
136	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 10/08/2022

Site Area: 331.82ha

Recent site history - 2019 aerial photograph

Capture Date: 25/08/2019

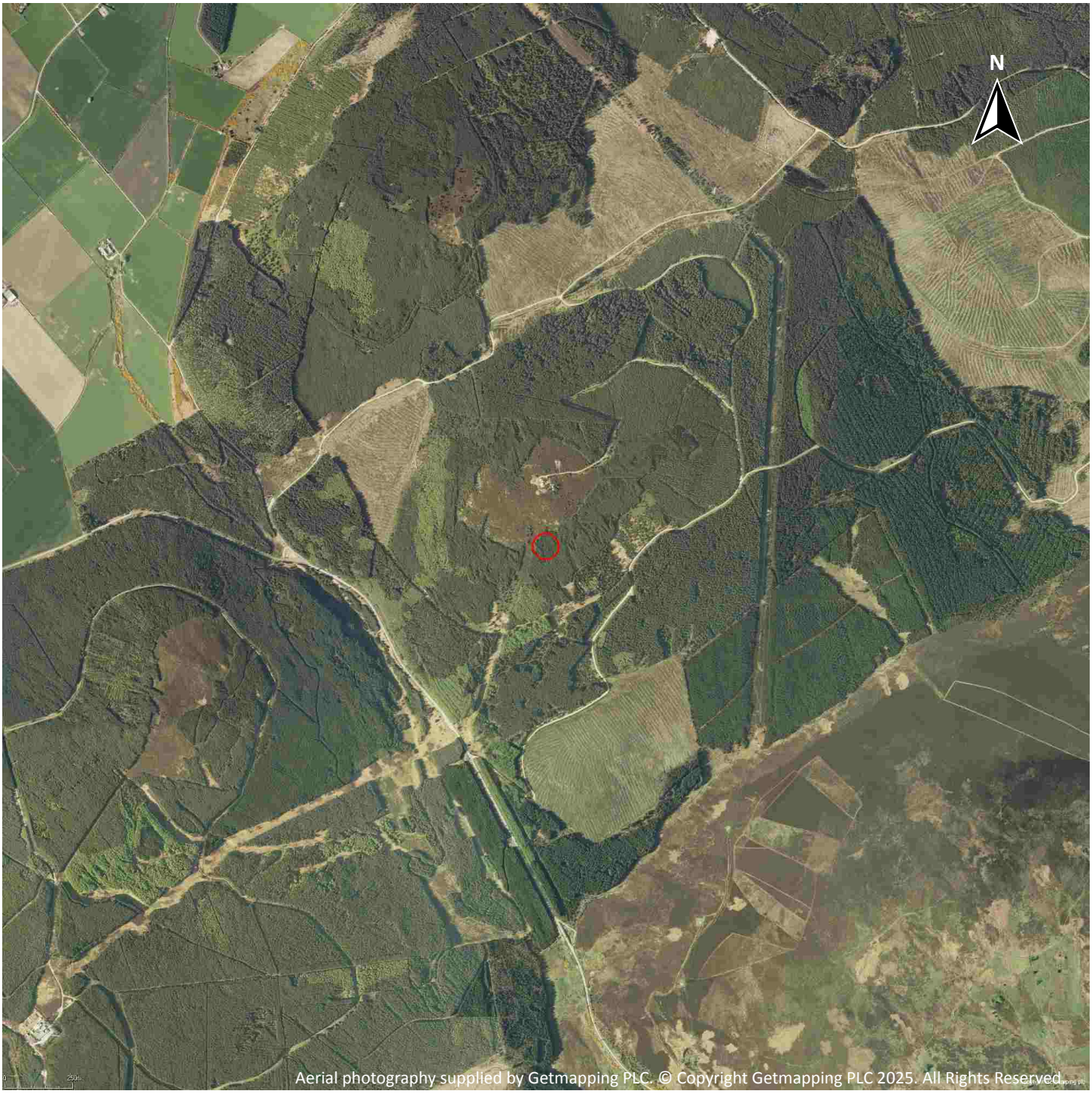
Site Area: 331.82ha

Recent site history - 2013 aerial photograph

Capture Date: 25/05/2013

Site Area: 331.82ha

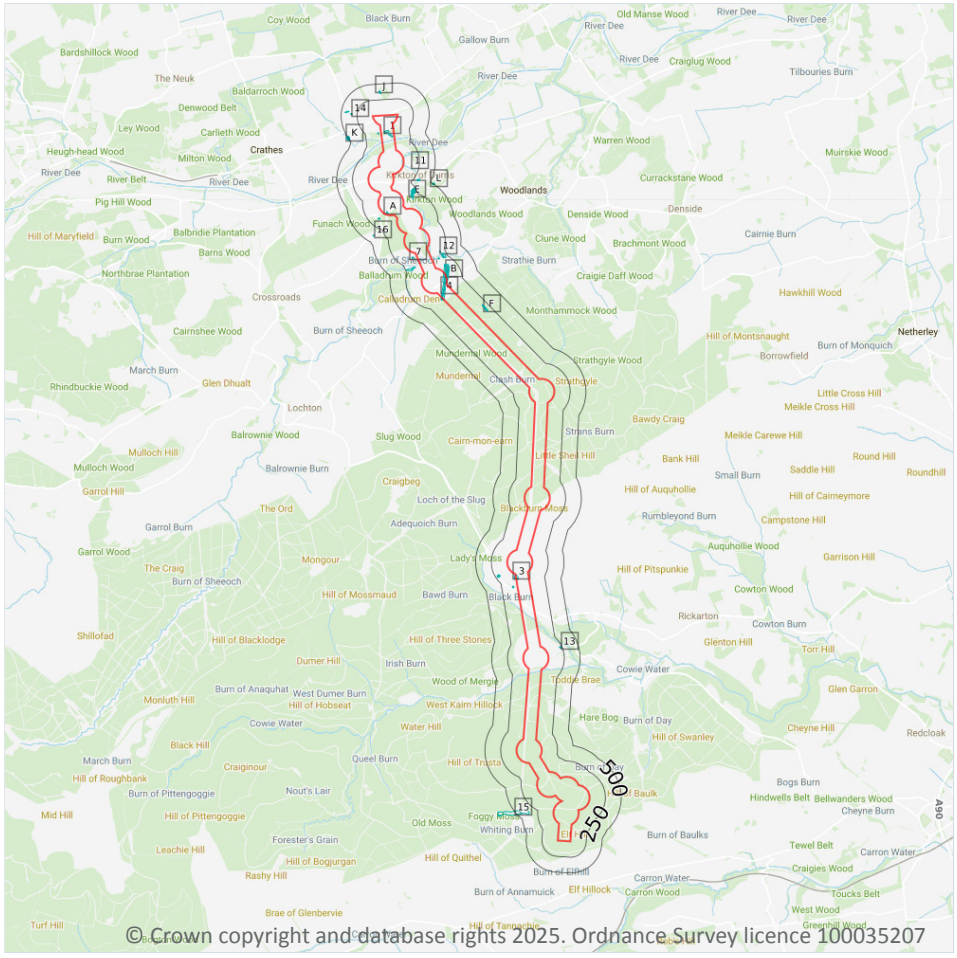
Recent site history - 2007 aerial photograph



Capture Date: 27/04/2007

Site Area: 331.82ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

1.1 Historical industrial land uses

Records within 500m	65

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 11 >**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Unspecified Ground Workings**	**1956**	**481134**

ID	Location	Land use	Dates present	Group ID
2	**On site**	**Unspecified Heap**	**1969 - 1987**	**484866**
3	**On site**	**Unspecified Quarry**	**1927 - 1981**	**487049**
4	**On site**	**Rifle Range**	**1904 - 1923**	**488779**
5	**On site**	**Rifle Range**	**1956**	**493507**
A	**On site**	**Unspecified Tank**	**1902**	**476939**
A	**On site**	**Unspecified Heap**	**1902**	**486741**
A	**On site**	**Unspecified Tank**	**1899**	**487335**
A	**On site**	**Unspecified Heap**	**1904**	**493997**
A	**On site**	**Unspecified Tank**	**1899**	**496560**
A	**On site**	**Unspecified Heap**	**1899**	**499078**
A	**On site**	**Unspecified Tank**	**1956**	**501038**
A	**On site**	**Unspecified Tank**	**1928**	**502257**
A	**On site**	**Unspecified Tank**	**1904**	**502324**
B	**On site**	**Rifle Range**	**1902**	**490393**
B	**On site**	**Rifle Range**	**1904**	**492696**
B	**On site**	**Rifle Range**	**1928**	**493533**
B	**On site**	**Rifle Range**	**1899**	**498279**
6	37m W	Gravel Pit	1928 - 1956	497742
7	48m SW	Refuse Heap	1904	500937
C	55m W	Unspecified Pit	1981	480415
C	66m W	Unspecified Quarry	1927	472591
8	93m SW	Unspecified Pit	1956	479930
9	93m NE	Unspecified Heap	1956	478202
10	101m SW	Gravel Pit	1928 - 1956	501264
D	116m SW	Unspecified Pit	1923	479931
E	138m E	Sawmill	1887	501604
E	138m E	Unspecified Mill	1899	492159
E	141m E	Sawmill	1928	488835

ID	Location	Land use	Dates present	Group ID
D	141m SW	Unspecified Heap	1956	478201
E	142m E	Sawmill	1899	491061
E	145m E	Unspecified Mill	1956	486072
E	155m E	Sawmill	1902	481753
F	157m NE	Unspecified Ground Workings	1956	501387
12	160m NE	Refuse Heap	1956	475294
F	161m NE	Unspecified Ground Workings	1904	491905
G	168m NE	Rifle Range	1928	479857
E	171m NE	Corn Mill	1887	473646
E	172m E	Disused Saw Mill	1969 - 1987	491017
E	172m NE	Sawmill	1923	484835
E	174m NE	Unspecified Mill	1928	485251
H	179m SW	Unspecified Pit	1981	480414
G	180m NE	Miniature Rifle Range	1956	474395
H	182m SW	Gravel Pit	1902 - 1927	501606
E	182m NE	Unspecified Mill	1956	495871
E	187m NE	Sawmill	1904	489280
E	210m NE	Unspecified Mill	1904	488745
13	212m NE	Unspecified Pit	1981	480413
I	305m SE	Police Station	1899	489042
I	311m SE	Police Station	1902	499125
I	315m SE	Police Station	1904	498453
14	325m W	Egg Packing Station	1969 - 1987	494494
15	345m SW	Unspecified Pit	1865	480421
J	353m N	Shale Tip	1902	500926
J	354m N	Shale Tip	1899	494245
16	379m SW	Refuse Heap	1956	475293
17	383m W	Unspecified Heap	1956	478213

ID	Location	Land use	Dates present	Group ID
K	480m SW	Unspecified Mills	1904	494134
K	481m SW	Corn Mill	1902	473649
K	486m SW	Unspecified Mills	1899	499745
K	487m SW	Unspecified Mills	1956	491542
K	487m SW	Unspecified Mills	1928	493901
L	488m NE	Unspecified Old Quarry	1899	495344
K	490m SW	Unspecified Mill	1969 - 1987	487377
L	496m NE	Unspecified Old Quarry	1904	487881

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**2**

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 11 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Tank**	**1968**	**65076**
11	131m E	Unspecified Tank	1968	65083

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**0**

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'.

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.

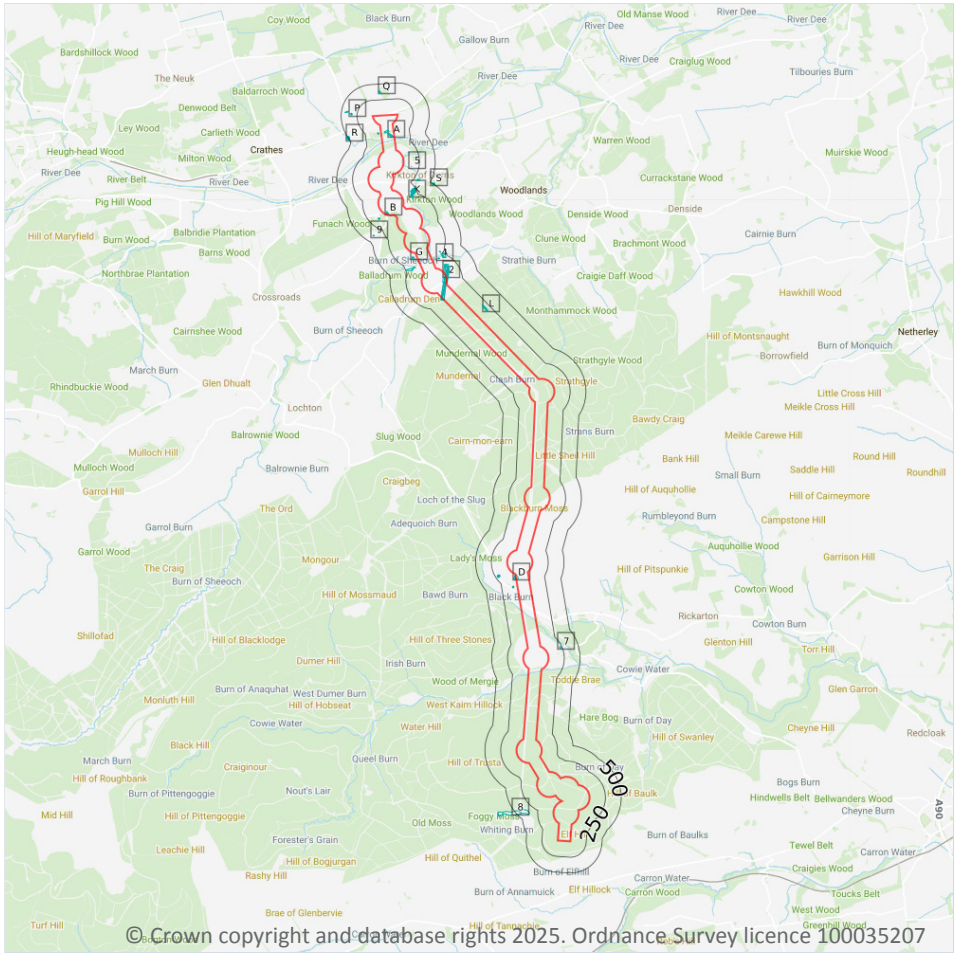
1.6 Historical military land

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



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

2.1 Historical industrial land uses

Records within 500m	91

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 16 >**

ID	Location	Land Use	Date	Group ID
1	On site	Unspecified Ground Workings	1956	481134
2	On site	Rifle Range	1956	493507
A	On site	Unspecified Heap	1987	484866

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Heap**	**1969**	**484866**
B	**On site**	**Unspecified Tank**	**1956**	**501038**
B	**On site**	**Unspecified Tank**	**1902**	**476939**
B	**On site**	**Unspecified Heap**	**1902**	**486741**
B	**On site**	**Unspecified Tank**	**1904**	**502324**
B	**On site**	**Unspecified Heap**	**1904**	**493997**
B	**On site**	**Unspecified Tank**	**1899**	**487335**
B	**On site**	**Unspecified Heap**	**1899**	**499078**
B	**On site**	**Unspecified Tank**	**1904**	**502324**
B	**On site**	**Unspecified Heap**	**1904**	**493997**
B	**On site**	**Unspecified Tank**	**1899**	**496560**
B	**On site**	**Unspecified Heap**	**1899**	**499078**
B	**On site**	**Unspecified Tank**	**1928**	**502257**
C	**On site**	**Rifle Range**	**1904**	**488779**
C	**On site**	**Rifle Range**	**1923**	**488779**
D	**On site**	**Unspecified Quarry**	**1927**	**487049**
D	**On site**	**Unspecified Quarry**	**1981**	**487049**
E	**On site**	**Rifle Range**	**1902**	**490393**
E	**On site**	**Rifle Range**	**1904**	**492696**
E	**On site**	**Rifle Range**	**1899**	**498279**
E	**On site**	**Rifle Range**	**1904**	**492696**
E	**On site**	**Rifle Range**	**1899**	**498279**
E	**On site**	**Rifle Range**	**1928**	**493533**
F	37m W	Gravel Pit	1956	497742
F	38m W	Gravel Pit	1928	497742
G	48m SW	Refuse Heap	1904	500937
G	48m SW	Refuse Heap	1904	500937
H	55m W	Unspecified Pit	1981	480415

ID	Location	Land Use	Date	Group ID
H	66m W	Unspecified Quarry	1927	472591
3	93m SW	Unspecified Pit	1956	479930
4	93m NE	Unspecified Heap	1956	478202
I	101m SW	Gravel Pit	1928	501264
I	102m SW	Gravel Pit	1956	501264
J	116m SW	Unspecified Pit	1923	479931
K	138m E	Sawmill	1887	501604
K	138m E	Unspecified Mill	1899	492159
K	138m E	Unspecified Mill	1899	492159
K	141m E	Sawmill	1928	488835
J	141m SW	Unspecified Heap	1956	478201
K	142m E	Sawmill	1899	491061
K	142m E	Sawmill	1899	491061
K	145m E	Unspecified Mill	1956	486072
K	155m E	Sawmill	1902	481753
L	157m NE	Unspecified Ground Workings	1956	501387
6	160m NE	Refuse Heap	1956	475294
L	161m NE	Unspecified Ground Workings	1904	491905
M	168m NE	Rifle Range	1928	479857
K	171m NE	Corn Mill	1887	473646
K	172m E	Disused Saw Mill	1987	491017
K	172m E	Disused Saw Mill	1969	491017
K	172m NE	Sawmill	1923	484835
K	174m NE	Unspecified Mill	1928	485251
N	179m SW	Unspecified Pit	1981	480414
M	180m NE	Miniature Rifle Range	1956	474395
N	182m SW	Gravel Pit	1927	501606
K	182m NE	Unspecified Mill	1956	495871

ID	Location	Land Use	Date	Group ID
K	187m NE	Sawmill	1904	489280
K	187m NE	Sawmill	1904	489280
N	198m SW	Gravel Pit	1902	501606
K	210m NE	Unspecified Mill	1904	488745
K	210m NE	Unspecified Mill	1904	488745
7	212m NE	Unspecified Pit	1981	480413
O	305m SE	Police Station	1899	489042
O	305m SE	Police Station	1899	489042
O	311m SE	Police Station	1902	499125
O	315m SE	Police Station	1904	498453
O	315m SE	Police Station	1904	498453
P	325m W	Egg Packing Station	1987	494494
P	325m W	Egg Packing Station	1969	494494
8	345m SW	Unspecified Pit	1865	480421
Q	353m N	Shale Tip	1902	500926
Q	354m N	Shale Tip	1899	494245
Q	354m N	Shale Tip	1899	494245
9	379m SW	Refuse Heap	1956	475293
10	383m W	Unspecified Heap	1956	478213
R	480m SW	Unspecified Mills	1904	494134
R	480m SW	Unspecified Mills	1904	494134
R	481m SW	Corn Mill	1902	473649
R	486m SW	Unspecified Mills	1899	499745
R	486m SW	Unspecified Mills	1899	499745
R	487m SW	Unspecified Mills	1956	491542
R	487m SW	Unspecified Mills	1928	493901
S	488m NE	Unspecified Old Quarry	1899	495344
S	488m NE	Unspecified Old Quarry	1899	495344

ID	Location	Land Use	Date	Group ID
R	490m SW	Unspecified Mill	1987	487377
R	490m SW	Unspecified Mill	1969	487377
S	496m NE	Unspecified Old Quarry	1904	487881
S	496m NE	Unspecified Old Quarry	1904	487881

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**2**

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 16 >**

ID	Location	Land Use	Date	Group ID
B	**On site**	**Unspecified Tank**	**1968**	**65076**
5	131m E	Unspecified Tank	1968	65083

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**0**

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'.

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.

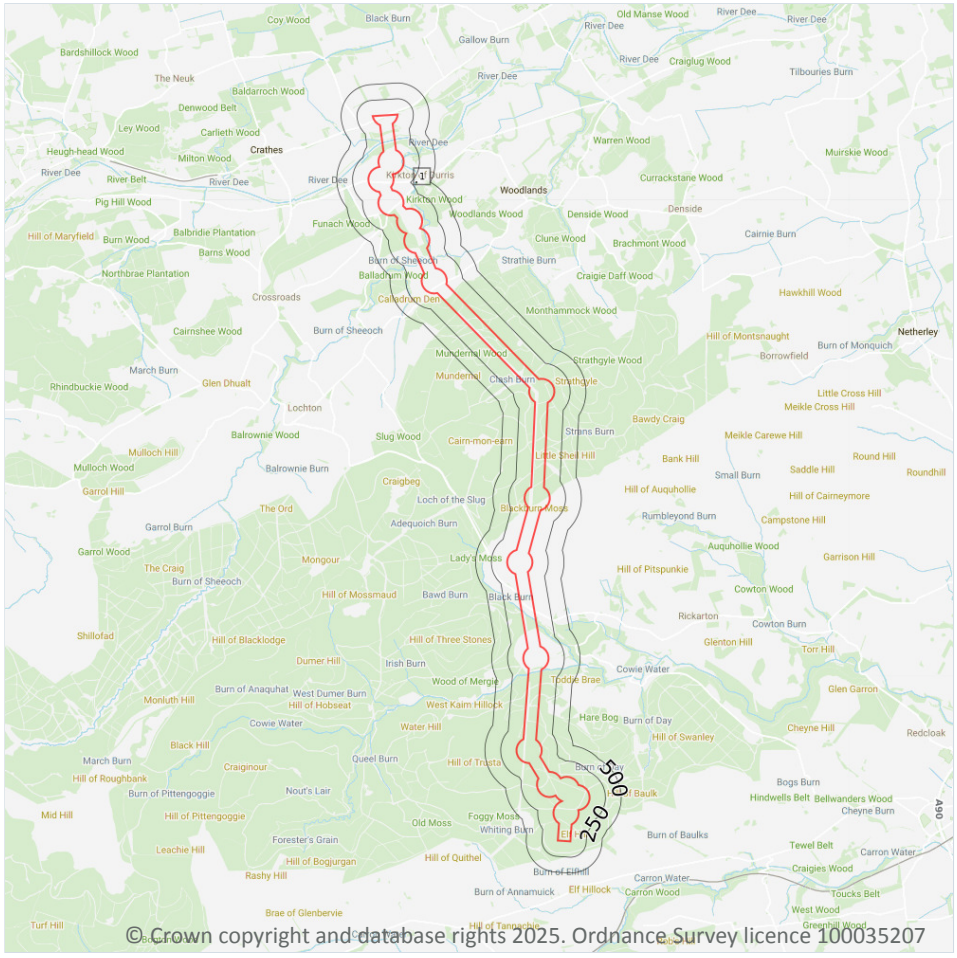
2.5 Historical garages

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 landfill (LA/OS)

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	1

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

Features are displayed on the Waste and landfill map on **page 22 >**

ID	Location	Site address	Source	Data type
1	306m SE	Refuse Tip	1966 mapping	Polygon

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.

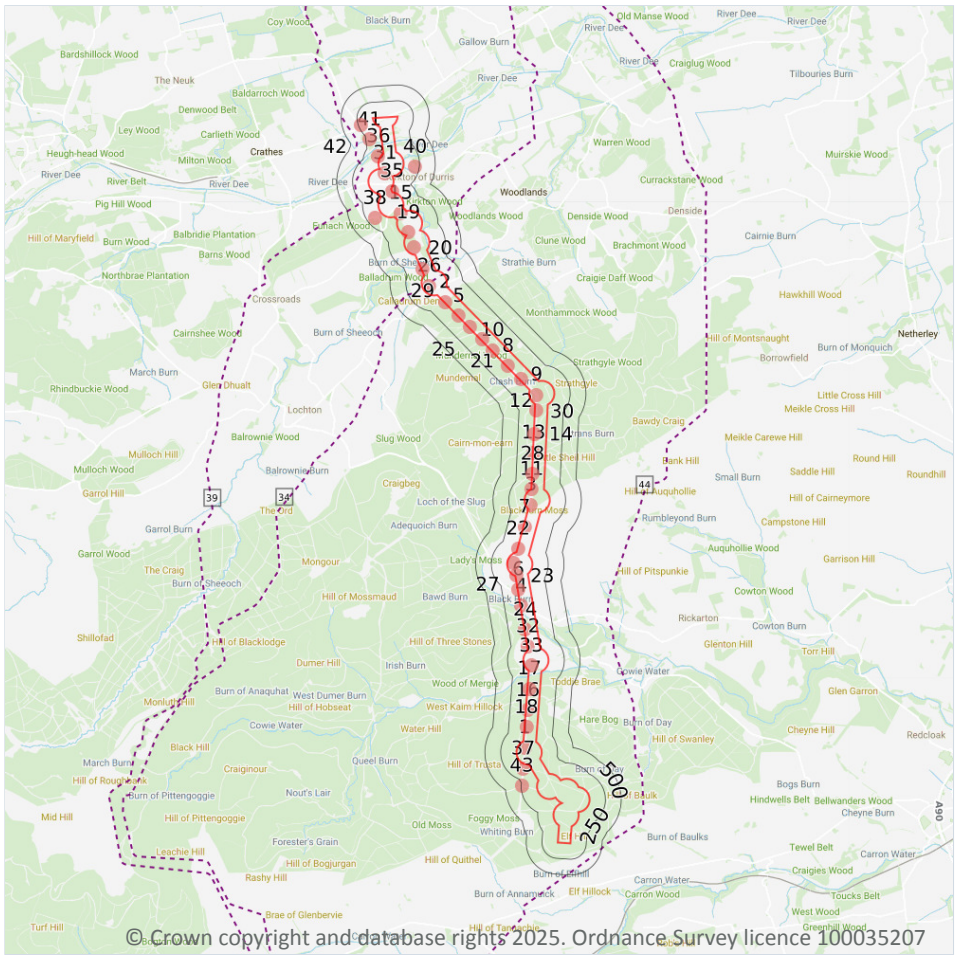
3.5 Historical waste sites

Records within 500m	0

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

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

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	41

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 24 >**

ID	Location	Company	Address	Activity	Category
1	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
2	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
3	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
4	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
5	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
6	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
7	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
8	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
9	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
10	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
11	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
12	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
13	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
14	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
15	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
16	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
17	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
18	On site	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
19	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
20	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
21	On site	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
22	**On site**	**Pylon**	**Kincardineshire, AB39**	**Electrical Features**	**Infrastructure and Facilities**
23	**On site**	**Pylon**	**Kincardineshire, AB39**	**Electrical Features**	**Infrastructure and Facilities**
24	**On site**	**Pylon**	**Kincardineshire, AB39**	**Electrical Features**	**Infrastructure and Facilities**
25	**On site**	**Pylon**	**Kincardineshire, AB31**	**Electrical Features**	**Infrastructure and Facilities**
26	**On site**	**Pylon**	**Kincardineshire, AB31**	**Electrical Features**	**Infrastructure and Facilities**
27	**On site**	**Pylon**	**Kincardineshire, AB39**	**Electrical Features**	**Infrastructure and Facilities**
28	**On site**	**Pylon**	**Kincardineshire, AB39**	**Electrical Features**	**Infrastructure and Facilities**
29	**On site**	**Pylon**	**Kincardineshire, AB31**	**Electrical Features**	**Infrastructure and Facilities**
30	**On site**	**Pylon**	**Kincardineshire, AB39**	**Electrical Features**	**Infrastructure and Facilities**
31	**On site**	**Pylon**	**Kincardineshire, AB31**	**Electrical Features**	**Infrastructure and Facilities**
32	**On site**	**Pylon**	**Kincardineshire, AB39**	**Electrical Features**	**Infrastructure and Facilities**
33	**On site**	**Pylon**	**Kincardineshire, AB39**	**Electrical Features**	**Infrastructure and Facilities**
35	3m NE	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
36	34m NW	Pylon	Kincardineshire, AB31	Electrical Features	Infrastructure and Facilities
37	74m S	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities
38	132m SW	George M Reid	Wainsgate, Durris, Banchory, Kincardineshire, AB31 6BS	Distribution and Haulage	Transport, Storage and Delivery
40	184m E	Pump	Kincardineshire, AB31	Water Pumping Stations	Industrial Features
41	194m W	Pylon	Aberdeenshire, AB31	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
42	205m W	Pylon	Aberdeenshire, AB31	Electrical Features	Infrastructure and Facilities
43	243m W	Pylon	Kincardineshire, AB39	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

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

Records within 250m	0

Current or recent tanks identified from the Ordnance Survey NGD.

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	3

High pressure underground gas transmission pipelines.

Features are displayed on the Current industrial land use map on **page 24 >**

ID	Location	Pipe Name	Details	
34	**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**

ID	Location	Pipe Name	Details	
39	155m 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
44	372m SE	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	0

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

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.

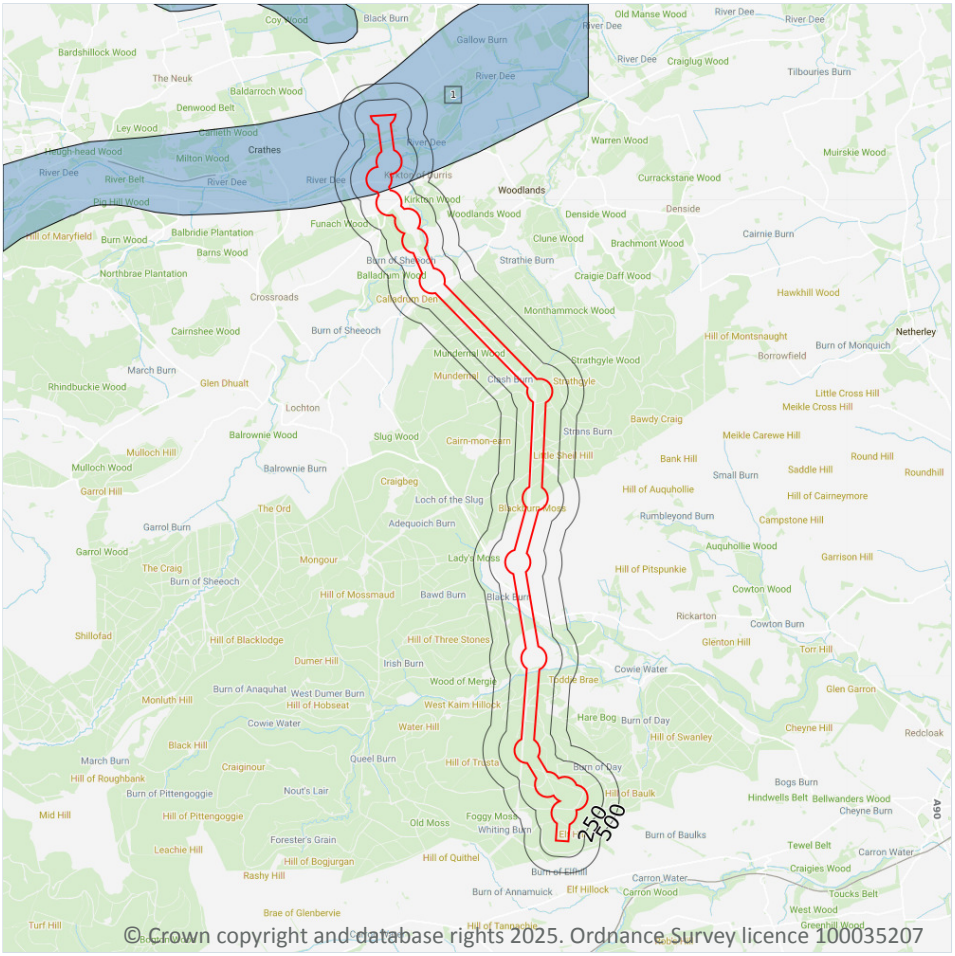
4.14 Pollution inventory radioactive waste

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	1

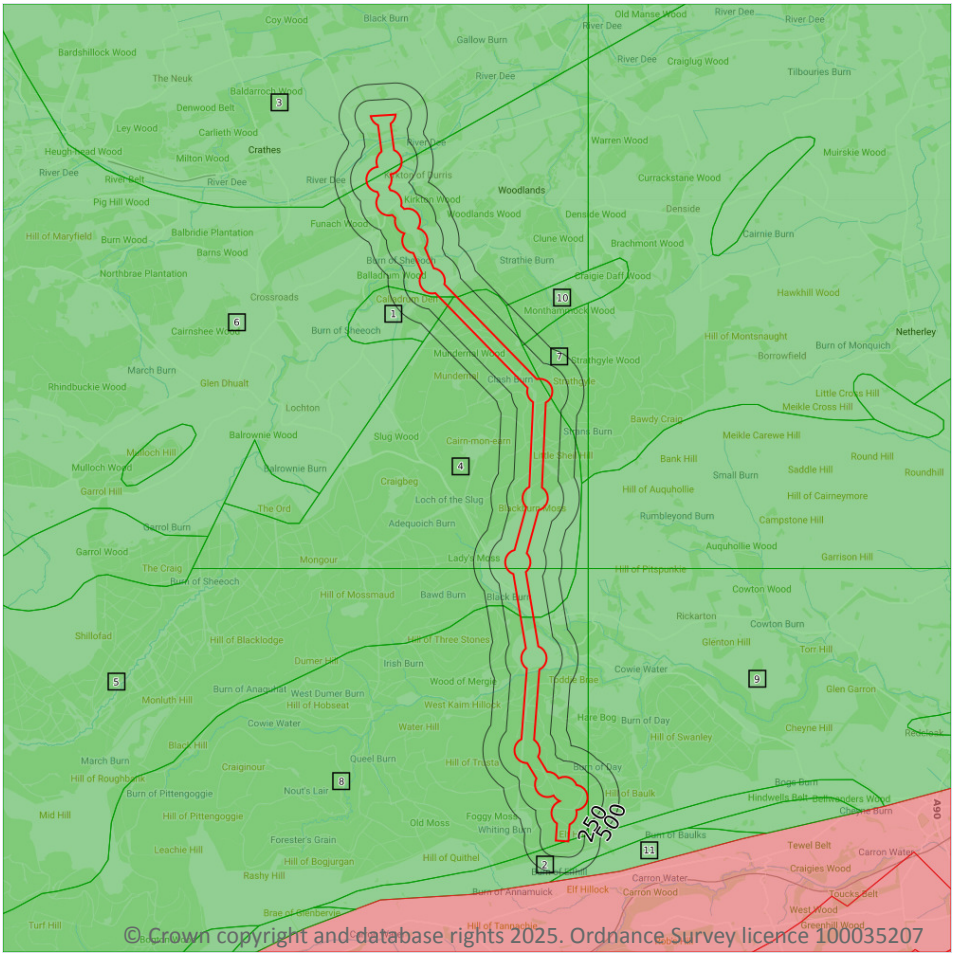
Records of groundwater classification within superficial geology.

Features are displayed on the Hydrogeology map on **page 30 >**

ID	Location	Description	Type	Rock description
1	**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**

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	11

Records of groundwater classification within bedrock geology.

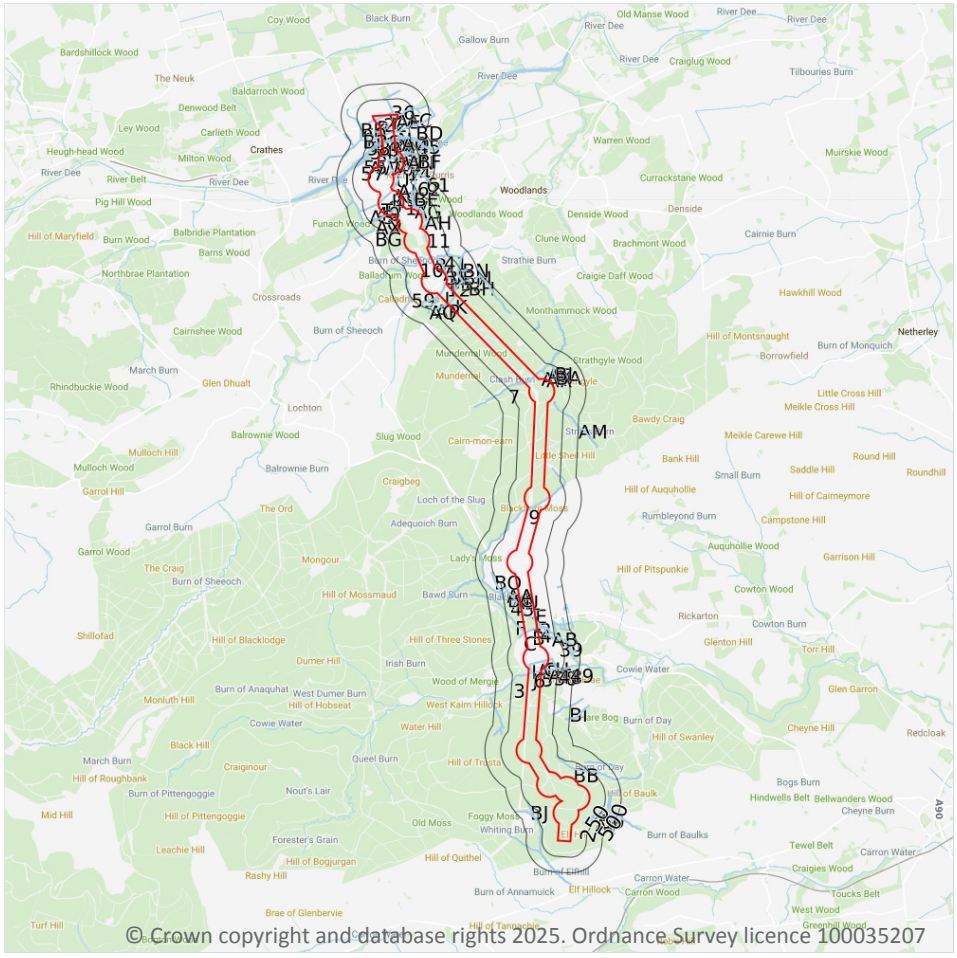
Features are displayed on the Bedrock aquifer map on **page 31 >**

ID	Location	Description	Flow	Summary	Rock description
1	On site	Low productivity aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs.	UNNAMED IGNEOUS INTRUSION, ORDOVICIAN TO SILURIAN
2	On site	Low productivity aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures.	SOUTHERN HIGHLAND GROUP

ID	Location	Description	Flow	Summary	Rock description
3	**On site**	**Low productivity aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs.**	**UNNAMED IGNEOUS INTRUSION, LATE SILURIAN TO EARLY DEVONIAN**
4	**On site**	**Low productivity aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs.**	**UNNAMED IGNEOUS INTRUSION, LATE SILURIAN TO EARLY DEVONIAN**
5	**On site**	**Low productivity aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs.**	**UNNAMED IGNEOUS INTRUSION, LATE SILURIAN TO EARLY DEVONIAN**
6	**On site**	**Low productivity aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Small amounts of groundwater in near surface weathered zone and fractures.**	**ARGYLL GROUP**
7	**On site**	**Low productivity aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Small amounts of groundwater in near surface weathered zone and fractures.**	**ARGYLL GROUP**
8	**On site**	**Low productivity aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Small amounts of groundwater in near surface weathered zone and secondary fractures.**	**SOUTHERN HIGHLAND GROUP**
9	10m E	Low productivity aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures.	SOUTHERN HIGHLAND GROUP
10	208m NE	Low productivity aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs.	UNNAMED IGNEOUS INTRUSION, ORDOVICIAN TO SILURIAN
11	405m SE	Low productivity aquifer	Flow is virtually all through fractures and other discontinuities	Several fault-bounded, lenticular outcrops of serpentine, metabasalt, matalimestone and psammite strung out between Garron Point, Stonehaven, in the northeast, and Glen Sannox, Arran, in the southwest yielding smal amounts of groundwater.	HIGHLAND BORDER COMPLEX

This data is sourced from the British Geological Survey.

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m	181

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 33 >**

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)	Black Burn

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)	Cowie Water
4	On site	Inland river not influenced by normal tidal action.	Underground	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)	Cowie Water
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)	Clash Burn
8	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Strathie Burn
9	On site	Inland river not influenced by normal tidal action.	On ground surface	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)	Burn of Sheeoch
11	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
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.	On ground surface	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)	Burn of Sheeoch

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)	-
16	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Dee
17	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
18	On site	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
19	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
20	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
21	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
22	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
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)	-
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)	-

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)**	**-**
E	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**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)**	**-**
G	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**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)**	**-**
G	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**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)**	**-**
G	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**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)**	**-**

ID	Location	Type of water feature	Ground level	Permanence	Name
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)	-
O	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.	On ground surface	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)	-
Q	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.	Underground	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.	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)	-
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)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
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)**	**-**
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)**	**-**
AC	4m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AD	5m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	6m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	11m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	13m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	16m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	20m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AF	21m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	23m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
AG	23m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AE	25m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AH	26m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AH	29m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AH	29m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AE	31m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AH	31m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AF	31m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
33	32m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Dee
AD	32m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
35	40m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AI	41m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AI	41m 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
AJ	41m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
36	42m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	42m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
38	43m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowie Water
AK	45m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Clash Burn
AK	45m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AL	47m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AH	47m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AM	48m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Strans Burn
AN	49m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AL	49m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AN	50m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AK	52m NE	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
AG	54m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AH	56m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AO	57m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Dee
AL	58m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AL	60m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AN	60m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AN	60m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
39	60m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Burn
AI	61m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AO	62m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Dee
AI	63m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
40	65m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AN	66m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch

ID	Location	Type of water feature	Ground level	Permanence	Name
AP	68m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AQ	69m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AR	72m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AS	73m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
41	76m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Strathie Burn
AL	86m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AL	88m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
43	93m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Burn
AL	100m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AU	100m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AV	102m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AN	104m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AW	112m 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
AN	123m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AN	123m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AN	125m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AN	127m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AZ	130m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Clash Burn
45	131m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Dee
BA	134m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AY	136m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AB	145m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BB	148m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Day
BC	152m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BD	156m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BE	157m NE	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
AX	161m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BE	161m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
48	163m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
BE	167m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AA	171m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BE	172m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AW	172m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Dee
49	172m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cowie Water
50	185m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BE	186m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
BF	192m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
52	192m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
54	200m 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
55	201m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Dee
57	204m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Dee
BG	205m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BE	212m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
BH	219m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
58	220m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BI	222m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
59	223m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Calladrum Burn
BJ	227m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
60	228m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
BF	228m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
BF	228m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
BK	228m SW	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
BL	228m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
61	229m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
62	229m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
BJ	233m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BJ	233m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BM	234m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BJ	234m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BJ	234m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AA	234m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
BF	234m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
BF	234m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BN	235m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BL	235m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Clash Burn

ID	Location	Type of water feature	Ground level	Permanence	Name
AA	237m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BL	237m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BL	241m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BL	241m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BO	242m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BP	246m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BF	246m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
BF	246m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AA	248m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
BF	249m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Burn of Sheeoch
AA	250m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Burn

This data is sourced from the Ordnance Survey.

6.2 Surface water features

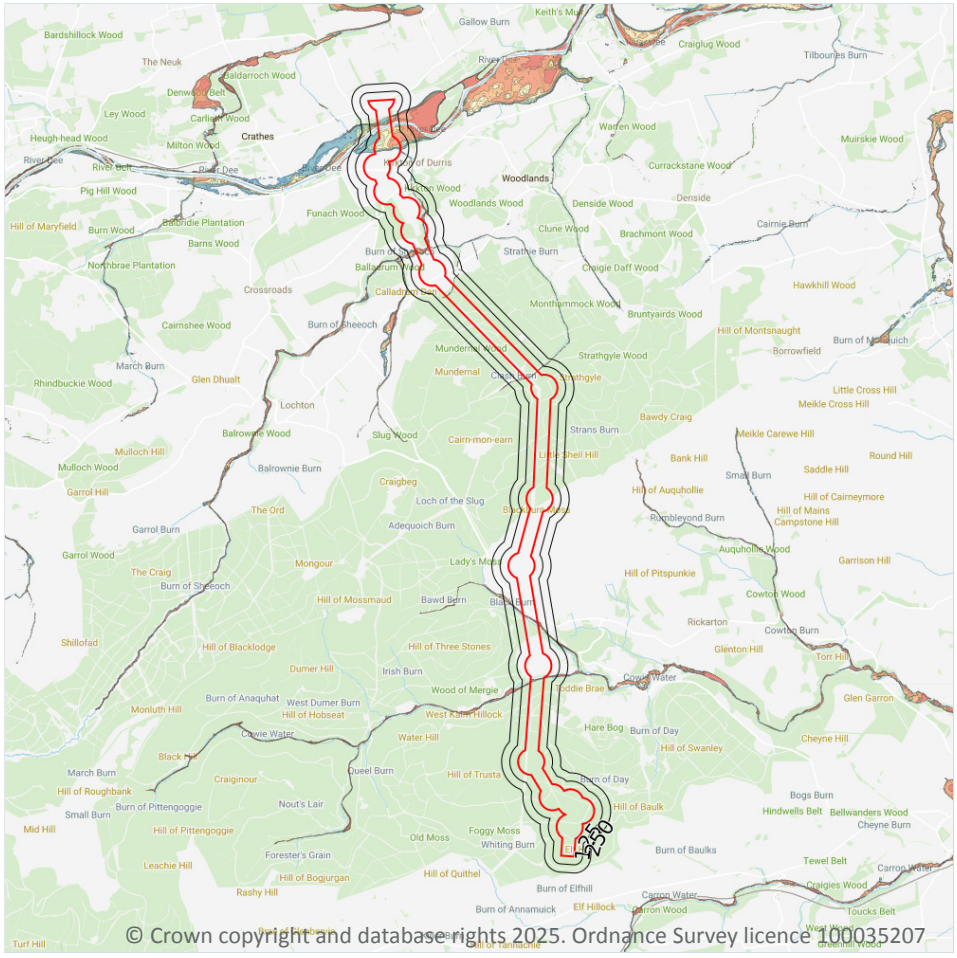
Records within 250m	56

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 33 >**

This data is sourced from the Ordnance Survey.

7 River 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

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 49 >**

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:

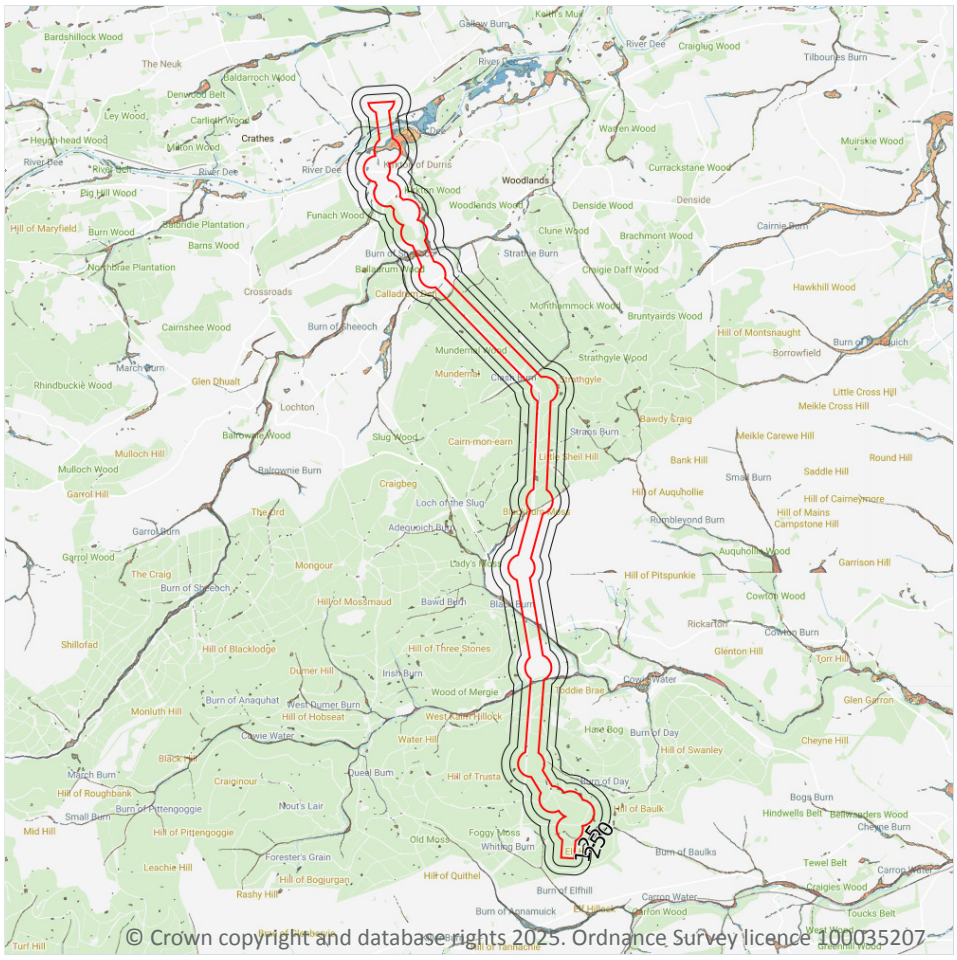
- 1 in 30 year (3.33%)
- 1 in 100 year (1%)
- 1 in 250 year (0.4%)
- and 1 in 1,000 year (0.1%)

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 52 >**

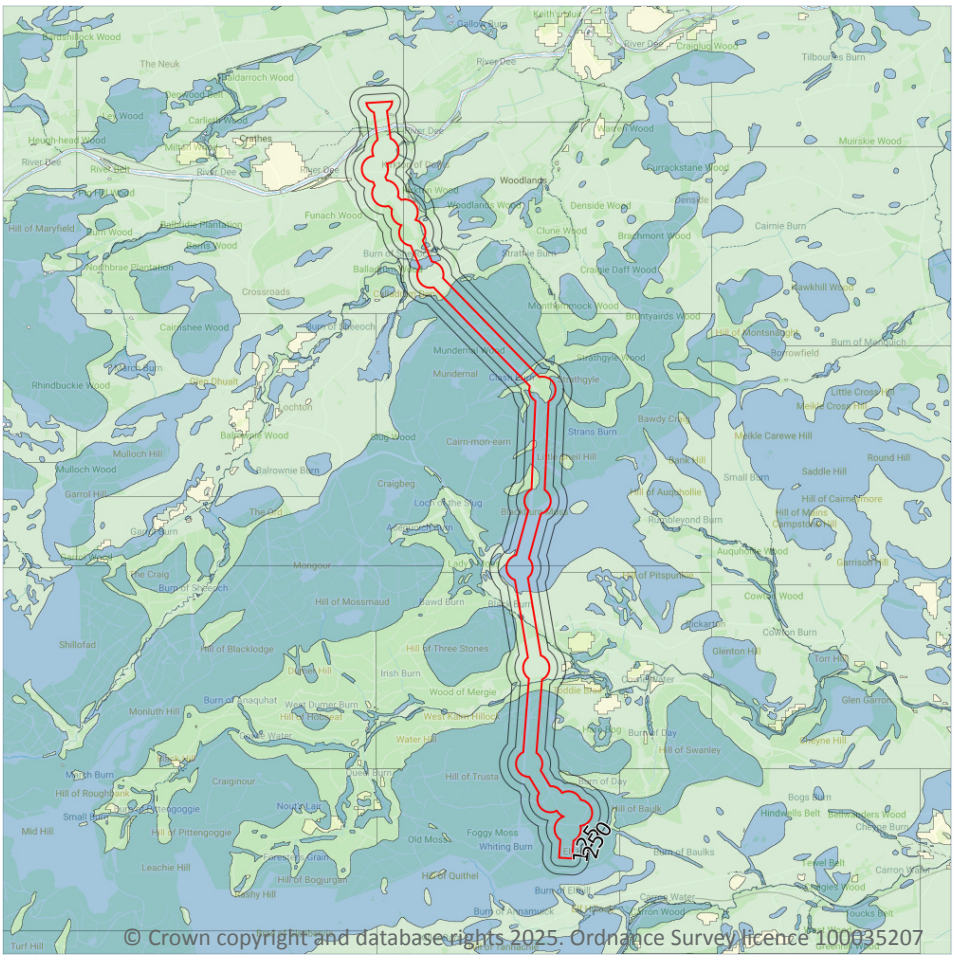
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on

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



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

10.1 Groundwater flooding

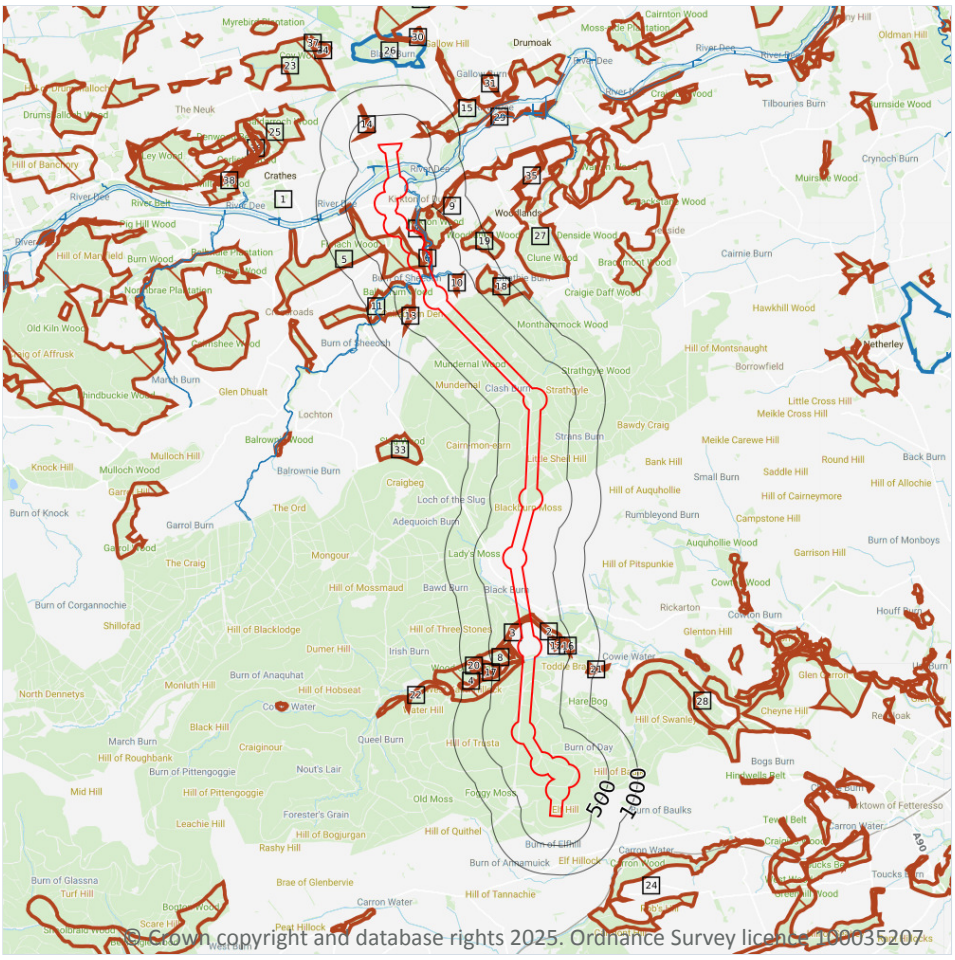
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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 54 >**

This data is sourced from Ambiental Risk Analytics.

11 Environmental designations



Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SSSI)

Special Areas of Conservation (SAC)

Designated Ancient Woodland

11.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	1

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 55 >**

ID	Location	Name	Data source
26	1330m N	Loch of Park	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	1

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 55 >**

ID	Location	Name	Features of interest	Habitat description	Data source
1	**On site**	**River Dee**	**Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Rivers with floating vegetation often dominated by water-crowfoot; Wet heathland with cross-leaved heath; Dry heaths; Mountain willow scrub; Species-rich grassland with mat-grass in upland areas; Mountain hay meadows; Blanket bog; Very wet mires often identified by an unstable `quaking` surface; Caledonian forest; Alder woodland on floodplains; Sea lamprey; Brook lamprey; Atlantic salmon; Freshwater pearl mussel; Otter**	**Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Broad-leaved deciduous woodland; Inland rocks, Screes, Sands, Permanent Snow and ice; Dry grassland, Steppes; Inland water bodies (Standing water, Running water); Mixed woodland; Coniferous woodland; Heath, Scrub, Maquis and Garrigue, Phygrana; Bogs, Marshes, Water fringed vegetation, Fens; Humid grassland, Mesophile grassland**	**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	36

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 55 >**

ID	Location	Name	Woodland Type
2	**On site**	**Unknown**	**Ancient (of semi-natural origin)**
3	**On site**	**Unknown**	**Long-Established (of plantation origin)**
4	**On site**	**Wood Of Mergie**	**Long-Established (of plantation origin)**

ID	Location	Name	Woodland Type
5	**On site**	**Funach/free Church Wood**	**Long-Established (of plantation origin)**
6	**On site**	**Unknown**	**Ancient (of semi-natural origin)**
7	**On site**	**Unknown**	**Ancient (of semi-natural origin)**
8	20m W	Unknown	Long-Established (of plantation origin)
9	52m NE	Kirkton Wood	Long-Established (of plantation origin)
10	152m E	Calladrum Wood	Long-Established (of plantation origin)
11	173m W	Balladrum/sunnyside Woods	Long-Established (of plantation origin)
12	182m E	Unknown	Long-Established (of plantation origin)
13	198m SW	Unknown	Ancient (of semi-natural origin)
14	243m NW	Unknown	Long-Established (of plantation origin)
15	274m NE	Unknown	Long-Established (of plantation origin)
16	379m E	Unknown	Long-Established (of plantation origin)
17	385m W	Unknown	Long-Established (of plantation origin)
18	512m NE	Strathie Wood	Long-Established (of plantation origin)
19	578m E	Woodlands Wood	Long-Established (of plantation origin)
20	729m W	Wood Of Mergie	Long-Established (of plantation origin)
21	849m E	Unknown	Long-Established (of plantation origin)
22	1167m W	Unknown	Ancient (of semi-natural origin)
23	1229m NW	Coy Wood	Long-Established (of plantation origin)
24	1250m SE	Carron/carmont Wood	Long-Established (of plantation origin)
25	1295m W	Baldarroch Wood	Long-Established (of plantation origin)
27	1358m NE	Sawmill/clune Wood	Long-Established (of plantation origin)
28	1378m NE	Unknown	Long-Established (of plantation origin)
29	1501m E	Unknown	Ancient (of semi-natural origin)
30	1747m N	Collonach/coldstream Plnt	Long-Established (of plantation origin)
31	1753m NE	Unknown	Long-Established (of plantation origin)
32	1759m N	Unknown	Long-Established (of plantation origin)
33	1787m W	Slug Wood	Long-Established (of plantation origin)

ID	Location	Name	Woodland Type
34	1792m NW	Coy Wood	Long-Established (of plantation origin)
35	1799m NE	Sawmill/clune Wood	Long-Established (of plantation origin)
36	1879m W	Carlieth Wood	Ancient (of semi-natural origin)
37	1965m NW	Coy Wood	Long-Established (of plantation origin)
38	1995m W	Milton 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.

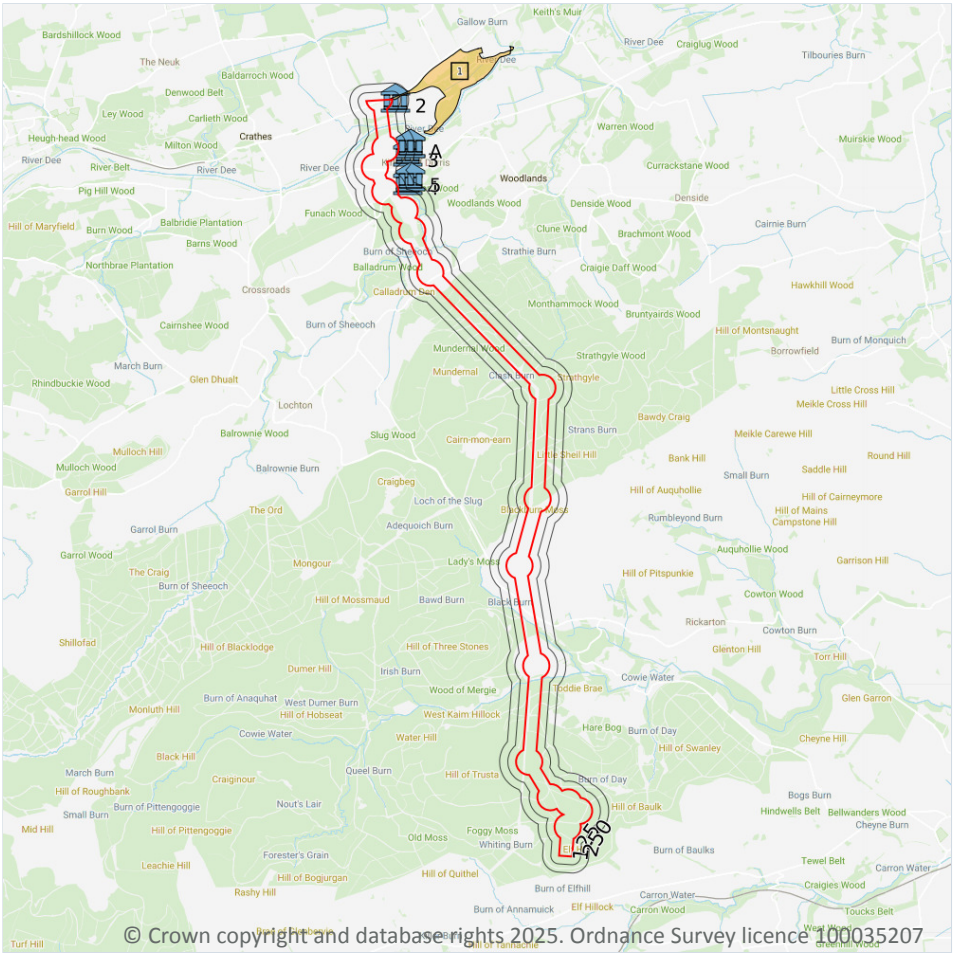
11.10 Marine Conservation Zones

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



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	6

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 60 >**

ID	Location	Name	Grade	Reference Number	Listed date
2	62m E	West Lodge, Park House, Aberdeenshire	B	334093	25/11/1980
3	150m E	Durris Parish Kirk Manse, Aberdeenshire	B	333960	18/08/1972
A	185m E	St Comgall's Church, Kirkton Of Durris, Aberdeenshire	C	333958	25/11/1980
4	187m NE	Mill Of Kirkton, Aberdeenshire	B	333949	18/08/1972
A	195m E	Churchyard With Fraser Burial Aisle, St Comgall's Church, Kirkton Of Durris, Aberdeenshire	B	333959	18/08/1972

ID	Location	Name	Grade	Reference Number	Listed date
5	243m NE	Old Bridge Of Durris, Aberdeenshire	B	333948	18/08/1972

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	**0**

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.

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

12.7 Registered Parks and Gardens

Records within 250m	**1**

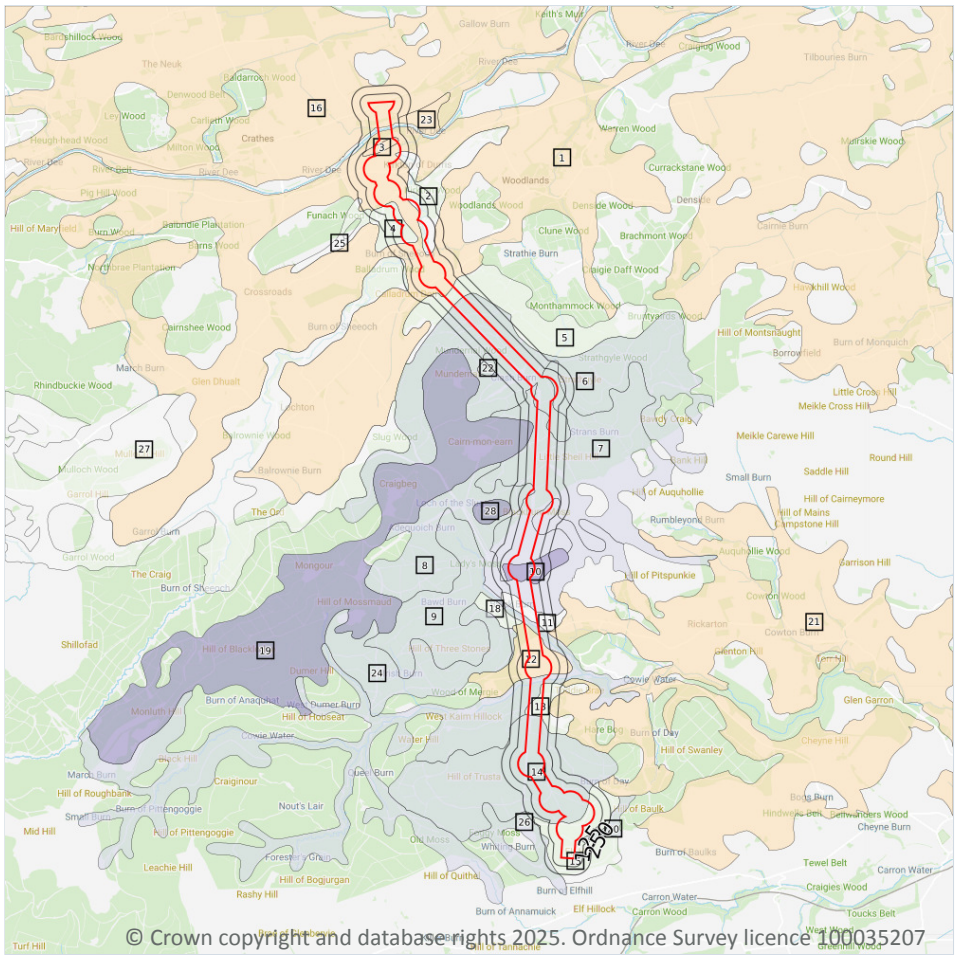
Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the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

Features are displayed on the Visual and cultural designations map on **page 60 >**

ID	Location	Name	Grade
1	15m NE	Park House	-

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

13 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 4 - good quality
- Grade 5 - moderate quality
- Grade 6 - poor quality
- Grade 7 - very poor quality

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 63 >**

ID	Location	Classification	Description
1	On site	Grade 3.2	Land Suited to Arable Cropping
2	On site	Grade 4.2	Land Suited to Arable Cropping
3	On site	Grade 3.1	Land Suited to Arable Cropping

ID	Location	Classification	Description
4	**On site**	**Grade 4.1**	**Land Suited to Arable Cropping**
5	**On site**	**Grade 4.2**	**Land Suited to Arable Cropping**
6	**On site**	**Grade 5.2**	**Land Suited only to Improved Grassland and Rough Grazings**
7	**On site**	**Grade 5.3**	**Land Suited only to Improved Grassland and Rough Grazings**
8	**On site**	**Grade 5.2**	**Land Suited only to Improved Grassland and Rough Grazings**
9	**On site**	**Grade 5.3**	**Land Suited only to Improved Grassland and Rough Grazings**
10	**On site**	**Grade 6.3**	**Land Suited only to Improved Grassland and Rough Grazings**
11	**On site**	**Grade 4.1**	**Land Suited to Arable Cropping**
12	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
13	**On site**	**Grade 4.2**	**Land Suited to Arable Cropping**
14	**On site**	**Grade 5.2**	**Land Suited only to Improved Grassland and Rough Grazings**
15	**On site**	**Grade 4.1**	**Land Suited to Arable Cropping**
16	**On site**	**Grade 3.2**	**Land Suited to Arable Cropping**
18	18m W	Grade 4.2	Land Suited to Arable Cropping
19	46m W	Grade 6.3	Land Suited only to Improved Grassland and Rough Grazings
20	48m SE	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
21	111m E	Grade 3.2	Land Suited to Arable Cropping
22	113m SW	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
23	119m E	Grade 3.1	Land Suited to Arable Cropping
24	138m W	Grade 5.2	Land Suited only to Improved Grassland and Rough Grazings
25	159m SW	Grade 4.2	Land Suited to Arable Cropping
26	160m SW	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
27	192m W	Grade 4.2	Land Suited to Arable Cropping
28	246m W	Grade 6.3	Land Suited only to Improved Grassland and Rough Grazings

This data is sourced from the James Hutton Institute.