



Angus Local Nature Conservation Sites

**Local Biodiversity Sites
Initial Phase Report**

September 2023



Contents

1	Introduction	2
2	Background	2
3	Methodology	3
4	Local Nature Conservation Sites	6
5	Land Management & Development	7
6	Conclusion	7
	Appendix 1: Maps of Local Nature Conservation Sites	8

1 Introduction

This study has been undertaken to identify Local Biodiversity Sites, which together with Local Geodiversity Sites will form a suite of Local Nature Conservation Sites (LNCS) in Angus. This is the initial phase of identifying and designating sites and a second phase is underway. With the twin biodiversity and climate crises, the protection of sites of nature conservation value has increased importance and this is reflected in National Planning Framework 4 (NPF4). The sites identified through this study will support policies within NPF4.

The study has in part built upon work previously undertaken by Scottish Wildlife Trust between 1993 and 2002 but has necessitated every site being re-visited to confirm that nature conservation interest remains on site.



Red Loch: zonations from open water to swamp and to poor-fen. Note also, areas of wet woodland

2 Background

The Nature Conservation (Scotland) Act 2004 places a duty on all public bodies to further the conservation of biodiversity (as far as is consistent with their functions), and in doing so have regard to the aims and objectives of the Scottish Biodiversity Strategy. LNCS have the potential to help local authorities and NatureScot to meet their biodiversity duty.

SNH (now NatureScot) published Guidance on Establishing and Managing Local Nature Conservation Site Systems in Scotland in 2006. The guidance introduces a single purpose for LNCS systems, and a standard approach for selecting new sites and reviewing existing sites. The guidance introduces the distinction between Local Biodiversity Sites and Local Geodiversity Sites and provides a combined approach. The guidance suggests that the term Local Nature Conservation Sites be used in preference to other nomenclature options. The guidance lists six factors which should be used to assess sites:

- Species Diversity
- Species Rarity
- Habitat Rarity
- Habitat Naturalness
- Habitat Extent
- Connectivity



River South Esk Kintrockat: Pond surrounded by swamp

The publication further provides guidance in relation to LNCS and the planning process.

National Planning Policy (NPF4) requires Local Development Plans to identify locally important assets as part of policy 4. Policy 4(d) specifically refers to LNCS and provides planning policy in that regard:

- d) *Development proposals that affect a site designated as a local nature conservation site or landscape area in the LDP will only be supported where:*
 - i) *Development will not have significant adverse effects on the integrity of the area or the qualities for which it has been identified; or*
 - ii) *Any significant adverse effects on the integrity of the area are clearly outweighed by social, environmental or economic benefits of at least local importance.*

Paragraph 8 PAN65 Planning & Open Space (2008) states that open space can define landscape and town structure and identity of settlements and green networks and corridors linking spaces also promote biodiversity and enable movement of wildlife. This may include LNCS, it is more likely that both LNCS and sites within Open Space Strategies may both be part the nature (green) networks.

Section A159 of the Town and Country Planning (Scotland) Act 1997 (as amended) each planning authority has a duty to prepare a Forestry and Woodland Strategy. The act requires that the strategy identifies woodlands of high nature conservation value. The act requires that the strategy sets out the planning authority's policies and proposals as to the protection and enhancement of woodlands, particularly woodland of high nature conservation value. This will likely include sites which are LNCS and both will often be part of nature networks.

3 Methodology

3.1 Project Management

To assist in the identification and assessment of potential sites within Angus, an expert assessment panel was established. This included council officers, officers from NatureScot and local nature conservation experts including species county recorders. The panel was chaired by a former employee of NatureScot, currently county recorder for the Botanical Society of Britain & Ireland.

3.2 SWT Survey

The Scottish Wildlife Trust (SWT) published Wildlife Sites Manual for the Assessment and Processing of Wildlife Sites in 1996. The manual created a standard method of survey and assessment. The methodology was developed in discussion with SNH (now NatureScot). The methodology established 6 selection criteria:

- Habitat Diversity
- Species Diversity
- Habitat Rarity
- Species Rarity
- Naturalness
- Extent in the Local Context

The SWT project was grant aided by Scottish Natural Heritage (SNH) (now NatureScot) and Angus Environmental Trust. Survey and assessment work took place between 1993 and 2002. After survey was undertaken, an assessment panel scored each site with a maximum score of 3 per criterion and with a pass mark being set at 9 points. In addition, there were other factors which could be taken into consideration if a site scored between 6 and 8 points. These included vulnerability, amenity value and education value. It is understood that sites for selection were derived from existing phase 1 habitat surveys and local knowledge.

The project closed around 2002 prior to completion, due to a shortage of funding within SWT. As a result, no sites were formally designated by local authorities. However, the surveys and assessments undertaken have been made available and form the starting point for this current project. This includes some 117 files relating to Angus, with varying levels of survey and assessment having been undertaken for each site.

3.3 LNCS Survey & Assessment

The SWT surveys were undertaken using the Nature Conservancy Council method, as detailed in the publication “Handbook for Phase 1 Habitat Survey – A technique for environmental Audit” (1991). The methodology used in this project is substantively based upon that developed for the SWT project and will similarly use Phase 1 and survey methodologies. In addition, the SWT methodology does not include a criterion relating to connectivity which is included in the slightly more recent SNH guidance and has become a standard inclusion in more recent methodologies for similar project in Scotland.

In order to make the best use of resources this methodology builds upon work already undertaken by SWT. A pass or fail is a result of addition of 6 factors as set out below. The criteria in NatureScot guidance and Scottish Planning Policy now includes “connectivity” as a criterion which is increasingly recognised as important for biodiversity resilience. This replaces “habitat diversity” which has been removed since the SWT methodology. An additional factor of “Climate Change” has been added to recognise those sites that make an important contribution to climate change mitigation or adaptation but would otherwise not have passed the assessment.

The Survey and assessment of sites undertaken by the SWT project is considered robust, but the surveys are now dated and without some level of checking or cross referencing with more recent records, would not be sufficient to form a basis for designating sites.

The Assessment Panel undertook a review of sites previously considered by SWT which led to a shortlist of sites. Thereafter an ecological consultant was appointed to check that the nature conservation interest on these sites remained present and to review boundaries. A small number of additional sites were included, on which Phase 1 Habitat Surveys were carried out. These surveys were carried out during 2022. In addition, where available, surveys were supplemented by records held by the Botanical Society of Britain & Ireland.

After survey was undertaken, the assessment panel scored each site with a maximum score of 3 per criterion, with a pass mark being set at 9 points. In addition, there are other factors which could be taken into consideration if a site scored between 6 and 8 points. Assessments were carried out by the Assessment Panel during 2022 and 2023.

The assessment criteria and scoring are detailed in table 1.

3.3 Woodland of High Nature Conservation Value

The Planning (Scotland) Act 2019 requires that woodland of high nature conservation value be identified within Forestry & Woodland Strategies prepared by local authorities. It is anticipated that some of these woodlands may also merit being included as local nature conservation sites, where nature conservation value is considered to meet the criteria.



Table 1: Assessment Criteria and Scoring

Criteria	Description	Scoring
Species Diversity	Refers to the number of different species found on site. A comparative assessment should be made of the number of species recorded against what might be expected to occur within similar habitats present in Tayside. This will generally refer to plant species but may be applied to the diversity of other species groups where relevant.	0 – Lower than expected 1 – Average 2 – Higher than expected 3 – Considerably higher
Species Rarity	The presence of species recorded on the site considered to be rare, endangered or vulnerable, including those on the Scottish Biodiversity List and Local Biodiversity Action Plan (LBAP) Priority species of regional, Scottish, UK or European rarity increases the importance of the site. Some sites are important because they hold a large proportion of the population of a rare species of the local area. Full botanical surveys may not be required for such sites or where a site is important for non-botanical interests.	0 – No or few rarities 1 – A few locally rare 2 – Many local rarities or important for local rarity 3 – Site important for nationally rare species
Habitat Rarity	The rarity of a habitat within the national and local context. Locally rare habitats have been identified by the assessment panel. Nationally rare habitats are those listed on the UK Biodiversity Action Plan (UKBAP). Sites are recognised where they are important for or contain a significant presence of a locally or nationally rare habitat.	0 – No rare/ priority habitat 1 – Locally Rare or UK Priority Habitat present 2 – Locally Rare and UK Priority Habitat present 3 – Significant area considered important Locally Rare habitat or important UK Priority Habitat
Naturalness	Refers to the degree of current and historic human intervention in natural processes for each habitat type to draw a conclusion of the level of naturalness across a site.	0 – Wholly modified 1 – Partially semi-natural/ mainly semi-improved 2 – Mainly semi-natural 3 – Wholly semi-natural
Extent in Local Context	The extent of the site, is judged against the range of similar areas in the locality. Large sites have been shown to have greater species diversity and be more ecologically stable than equivalent habitats on smaller sites.	0 – Small 1 – Average 2 – Larger than average 3 – Large
Connectivity	An assessment of the existing or potential physical links between habitats on site to similar surrounding habitats. Includes links to other sites of biodiversity value to support species dispersal, colonisation, and their value or potential to form part of a nature network to enable species colonisation and population resilience. Nature network refers to wider habitat networks beyond the local area including where there is a relevant ecological connection to a designated site. This may include but is not limited to designated “green networks”.	0 – No connectivity. 1 – Potential to connect to similar local habitats 2 – Connection to wider habitat network 3 – Connected to wider nature network
Additional Factors	<p>Social Factors Opportunities for access, informal recreation and education where contact with natural heritage features may increase or support appreciation and promotion of biodiversity.</p> <p>Climate Change & Resilience The role a site plays in carbon capture, natural flood management or wider resilience and ecosystem health thereby supporting wider biodiversity.</p> <p>Vulnerability Some sites may be vulnerable from development, disturbance and climate change as a result of their location, fragmentation and further isolation.</p>	Although not included in the initial scoring site assessment, they could be used as a justification for the inclusion of marginal sites with scores between 6 to 8.

4 Local Nature Conservation Sites

Following completion of initial phase a total of 28 sites have passed the assessment process and are considered suitable for designation as Local Nature Conservation Sites. These sites are listed in table 2. Maps of the 28 sites are included as appendix 1.

Table 2: Sites suitable for designation as Local Nature Conservation Sites

Site	Area (ha)	Main Habitats
Auchleuchrie	41.90	Lowland birch woodland
Backmuir Wood	53.13	Semi-natural woodland
Balmadies Wood	27.29	Lowland wet woodland wetland marshy grassland
Barrelwell Bog	16.80	Wet woodland neutral grassland marshy grassland
Braes of Airlie	6.85	Lowland birch woodland grassland
Captain's Pond	29.83	Basin bog Semi-natural broadleaved woodland open water swamp marshy grassland unimproved acid grassland
Den of Ogil Reservoir	60.77	Wetland Lowland broadleaved woodland mixed grassland
Deuchar Hill	43.47	Semi-improved acid grassland marshy grassland dry heath valley mire
Egno Moss	76.54	Wetland broadleaved woodland grassland
Eskhill	59.21	Lowland birch woodland acid grassland
Glamis Disused Sand Pit	11.99	Basin bog Semi-natural broadleaved woodland open water swamp marshy grassland unimproved acid grassland
Inzion	24.13	Lowland acid grassland wet woodland marshy grassland
Leys of Lindertis	2.96	Semi-natural broadleaved wet woodland Marshy grassland Swamp
Lunan Bay	163.79	Coniferous Plantation Mixed plantation Dense scrub Unimproved neutral grassland Tall ruderal Swamp Running water Saltmarsh Dune grassland Open dune Maritime cliff Inter-tidal zone
Lundie Bog	5.37	Semi-natural broadleaved woodland Conifer plantation Scattered scrub Scattered broadleaves Scattered conifers Unimproved acid grassland Marshy grassland Dense Bracken Acid dry dwarf shrub heath Acid flush Fen (Basin mire) Swamp Standing water
Mains of Aldbar	22.08	Semi-natural broadleaved woodland Plantation woodland Marshy grassland
Market of Muir, Westmuir	31.60	Lowland birch woodland heathland grassland
Melgam Water	21.20	Lowland broadleaved woodland grassland open running water
Newton Moss	20.64	Lowland marshy grassland blanket bog
Oak Wood	16.80	Semi-natural broadleaved woodland unimproved acid grassland
Pitnappie Moss	19.24	Marshy grassland basin mire woodland
Powmyre	14.70	Low-lying basin mire marshy grassland fen swamp woodland
Red Loch	38.93	Wetland acid grassland
Redmire Wood	19.28	Wet birch woodland lowland basin mire
Reekie Linn	24.95	Semi-natural broadleaved woodland plantation woodland neutral grassland
River South Esk Kintrockat	18.41	Semi-natural broadleaved woodland marshy grassland neutral grassland
The Thorn	18.38	Semi-natural broadleaved woodland semi-improved grassland
Woodside	6.81	Birch woodland Semi-improved acid grassland

5 Land Management & Development

The process is a technical exercise which has been carried by an expert assessment panel.

We have attempted to identify landowners and have advised them of the proposed designation of sites known to be on their land. We have also provided them with a summary sheet which includes a map and a description of the nature conservation interest on the site. Landowners have been given opportunity to discuss the proposed designation should they wish to do so.

It is generally recognised that it is often the case that the high nature conservation value of sites is a result of how the land has been managed. We are keen to work with landowners to protect and manage the conservation interest. The designation as LNCS can sometimes assist land managers access funding to pro-actively manage the sites.

The designation of a site as an LNCS will be a material consideration in terms of determination of planning applications. Planning policy in this regard is contained within NPF4 Policy 4.

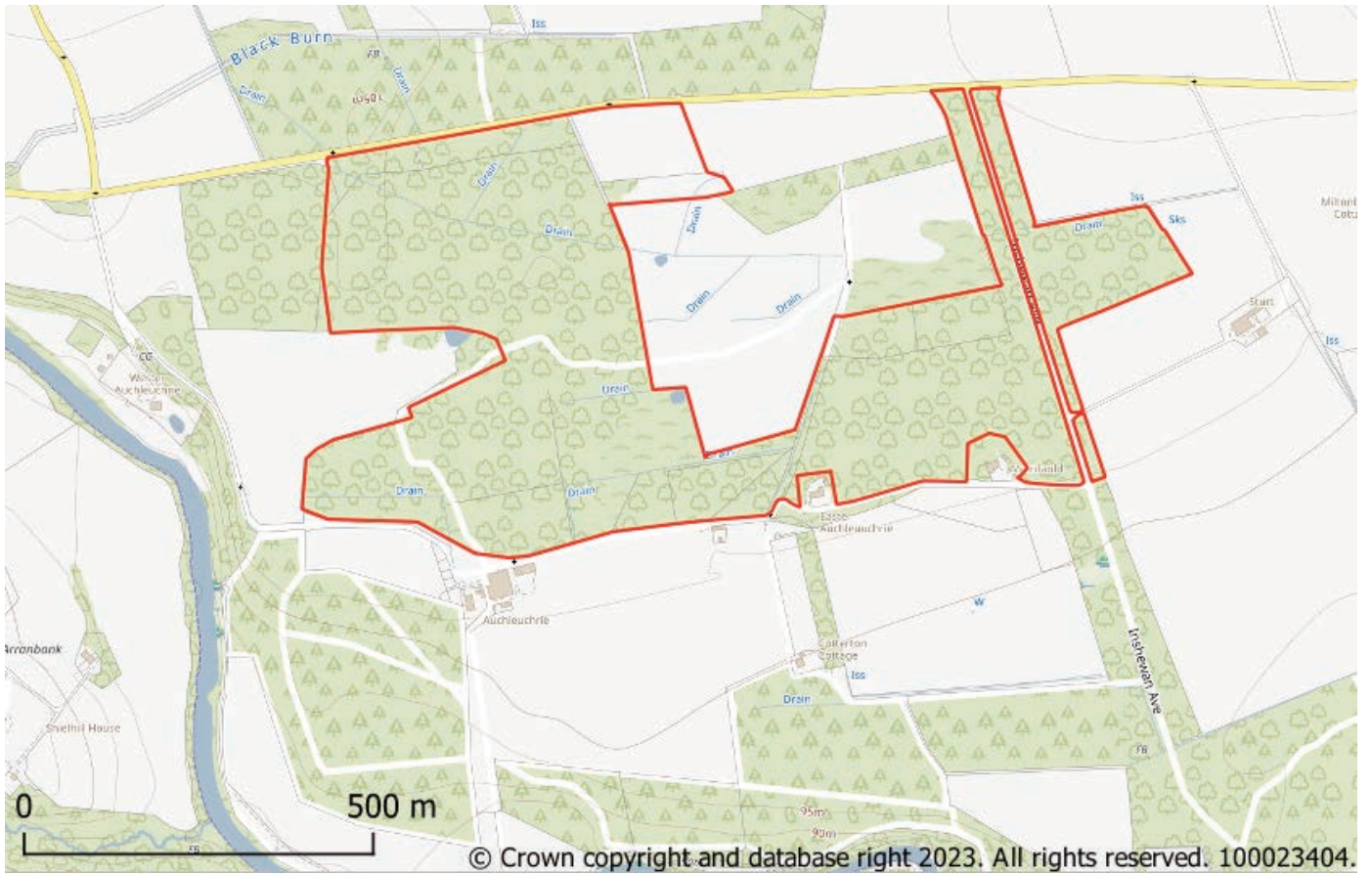
6 Conclusion

The identification of these 28 LNCS represents the first phase of the project and a second phase is currently underway. The designated sites will form an important part of the Evidence Report of the forthcoming Local Development Plan 2.

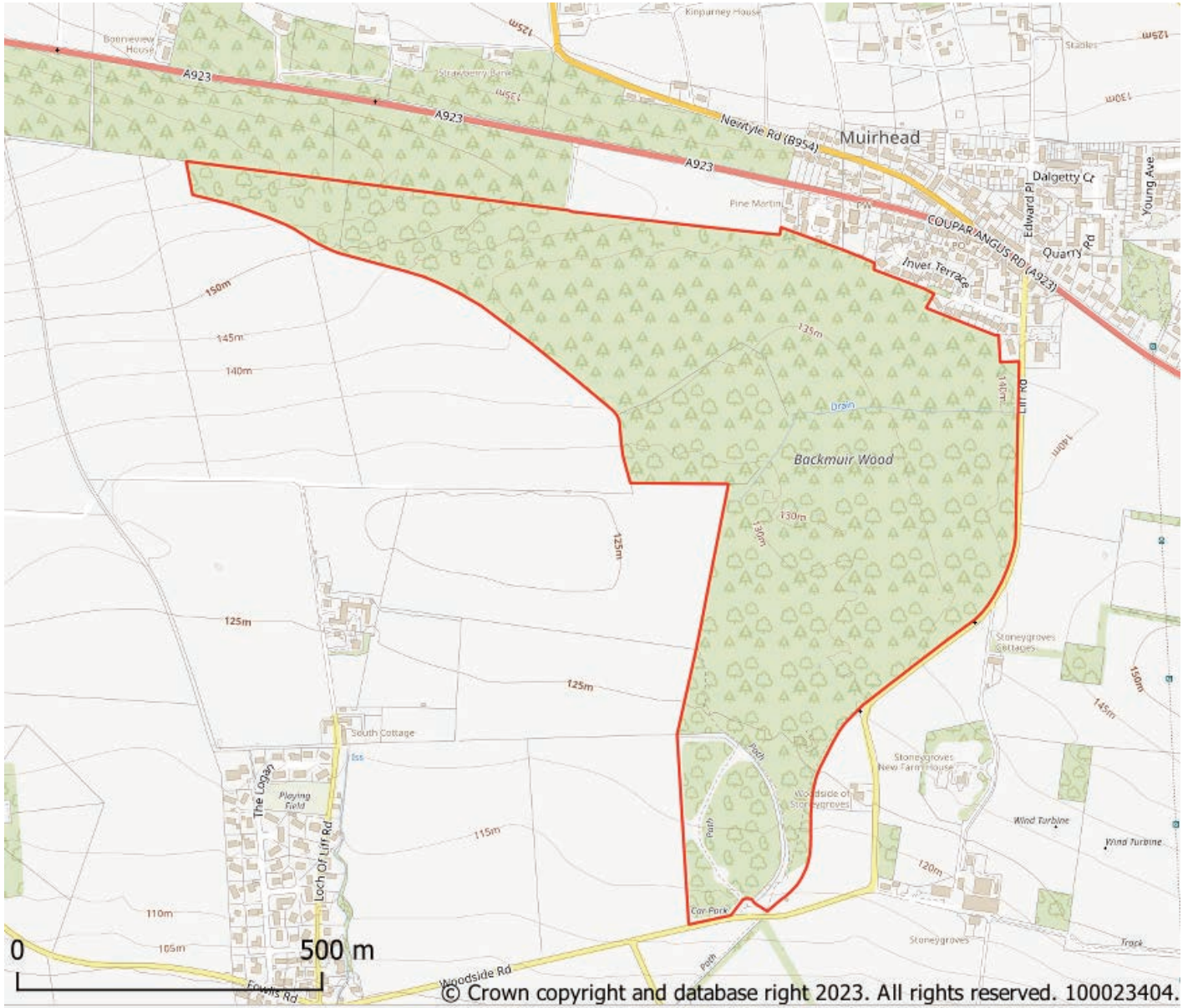
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Appendix 1: Maps of Local Nature Conservation Sites

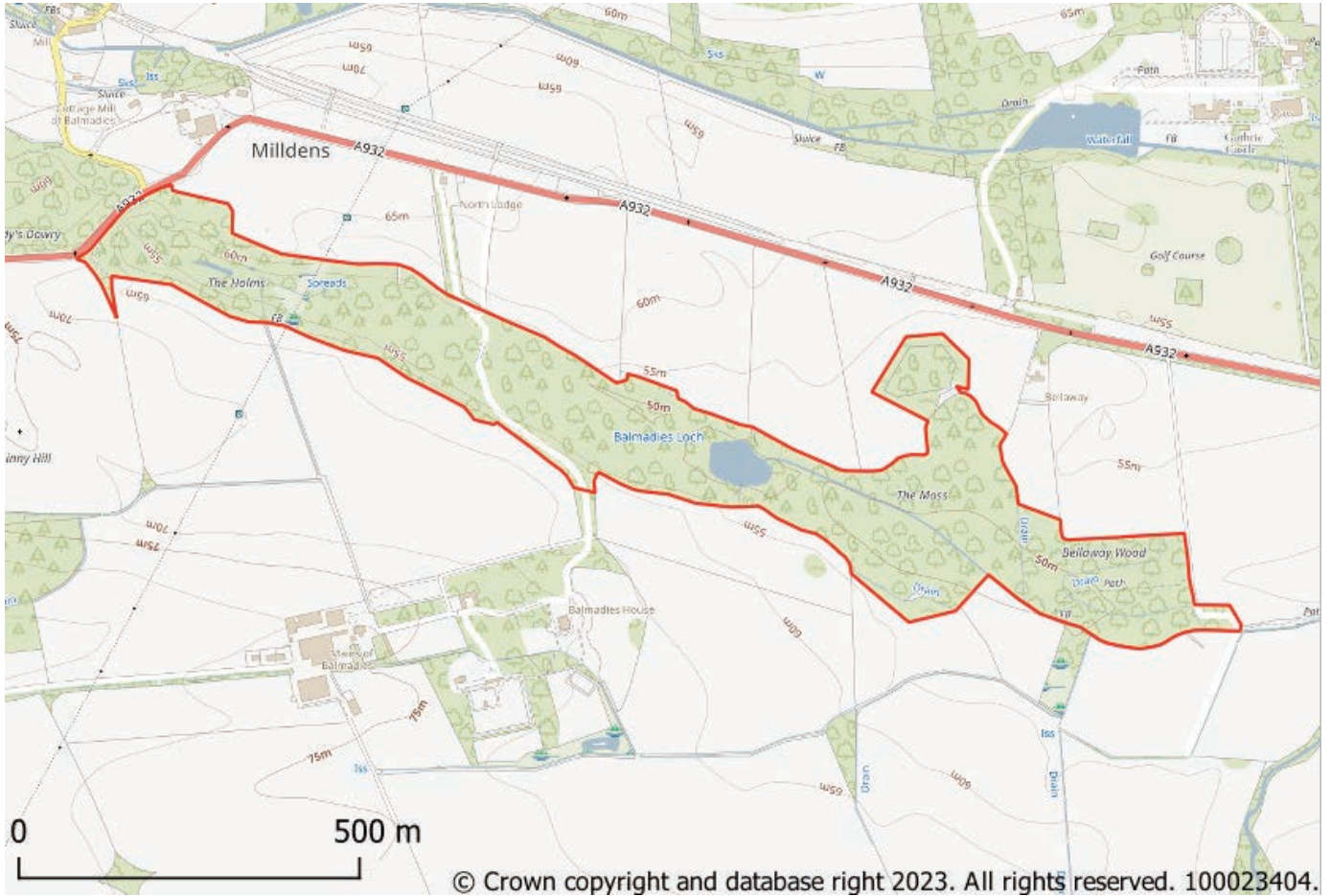
Auchleuchrie LNCS



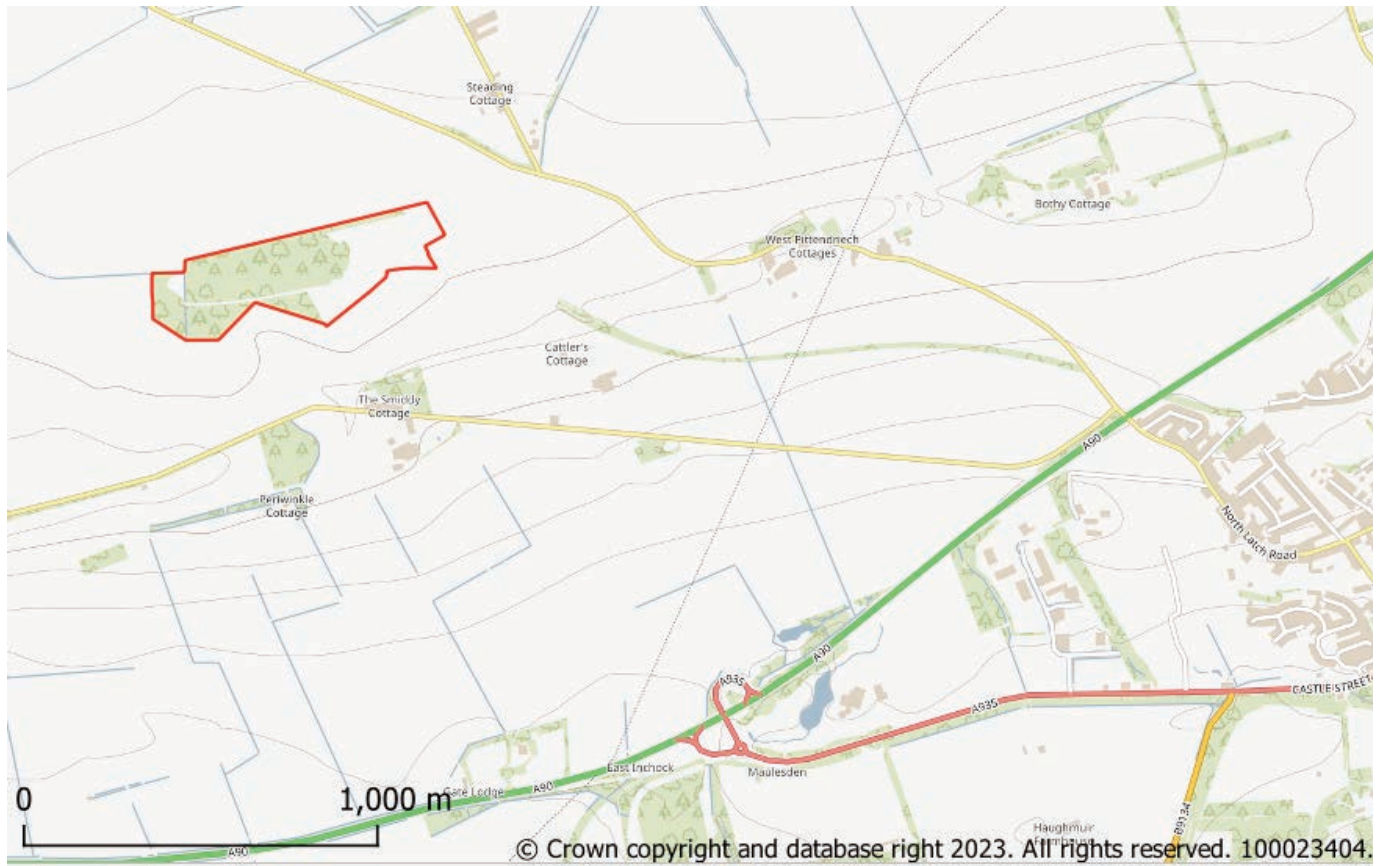
Backmuir Wood LNCS



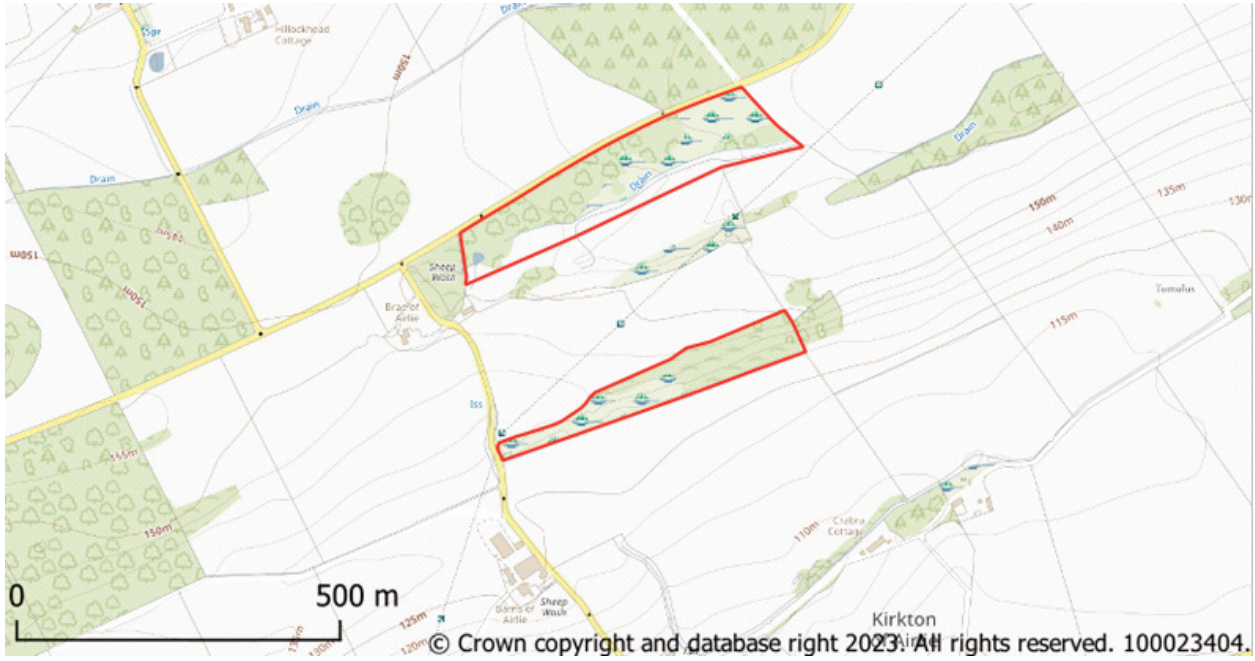
Balmadies Wood LNCS



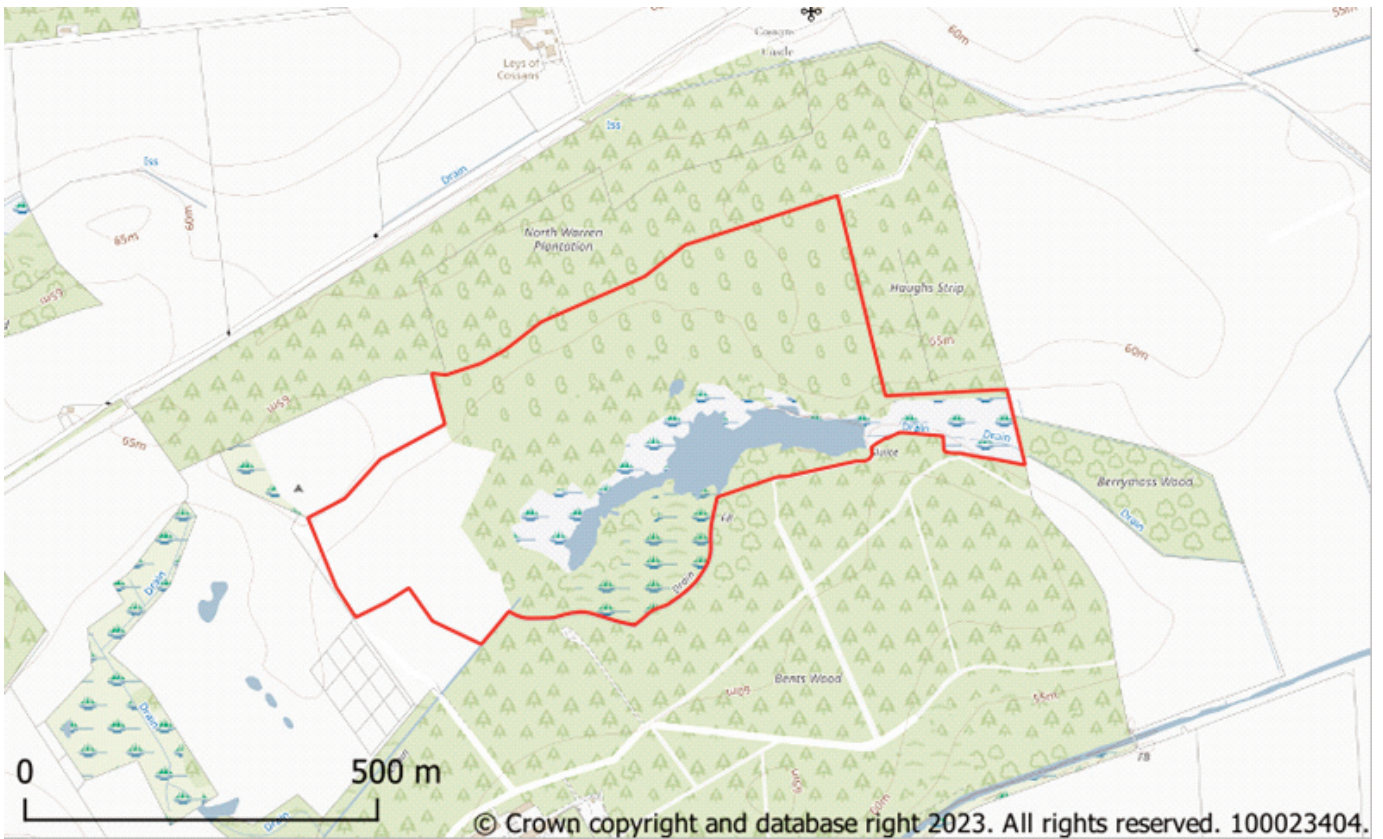
Barrelwell Bog LNCS



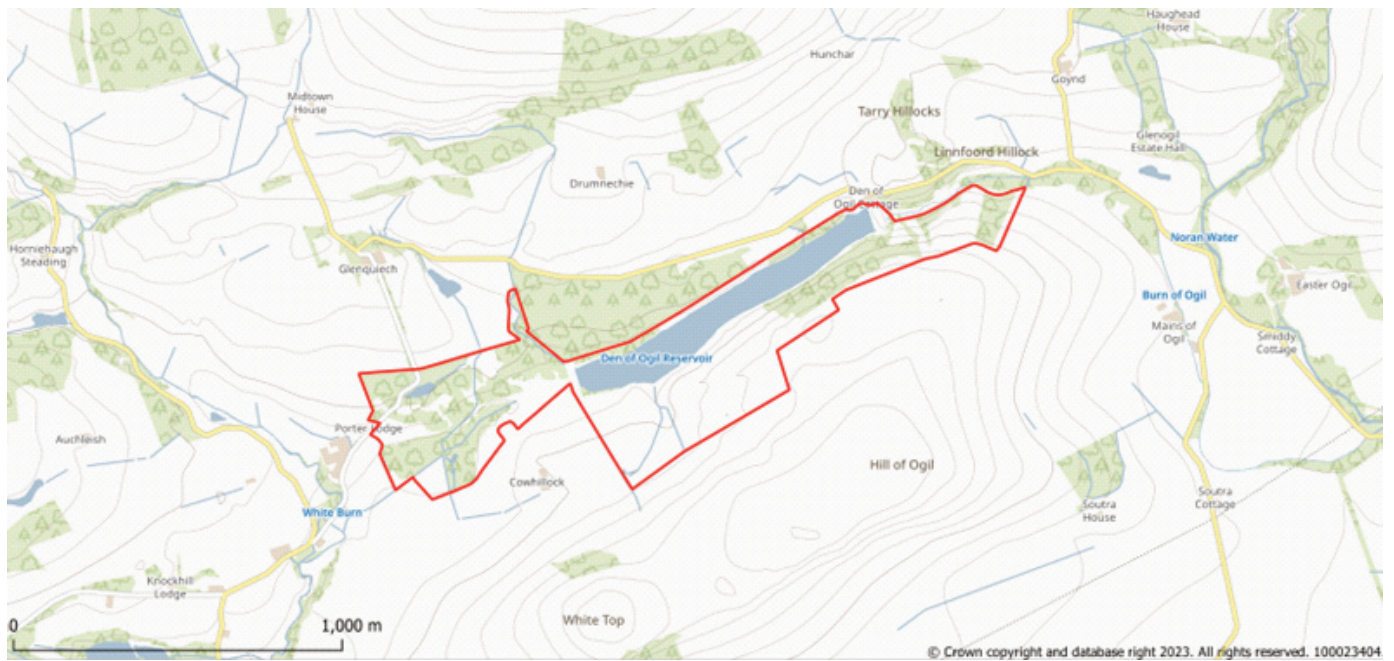
Braes of Airlie LNCS



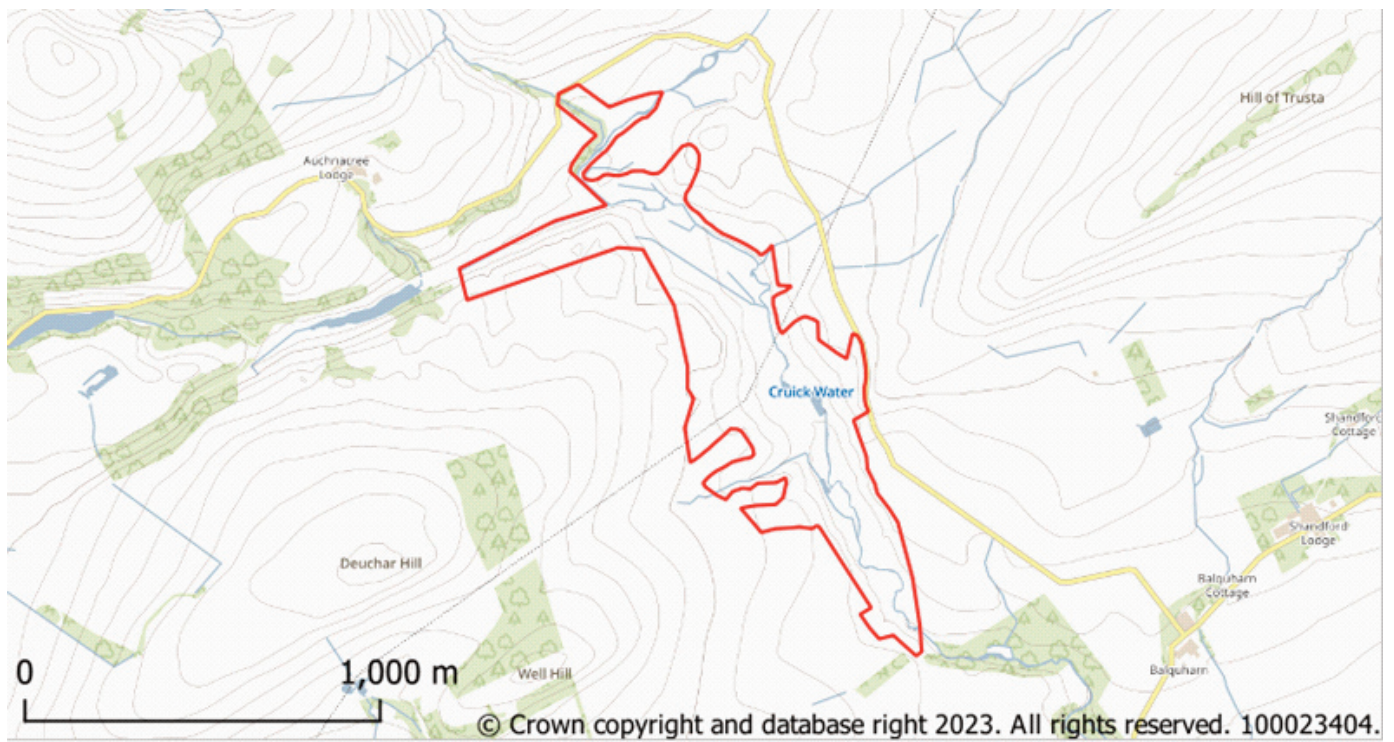
Captain's Pond LNCS



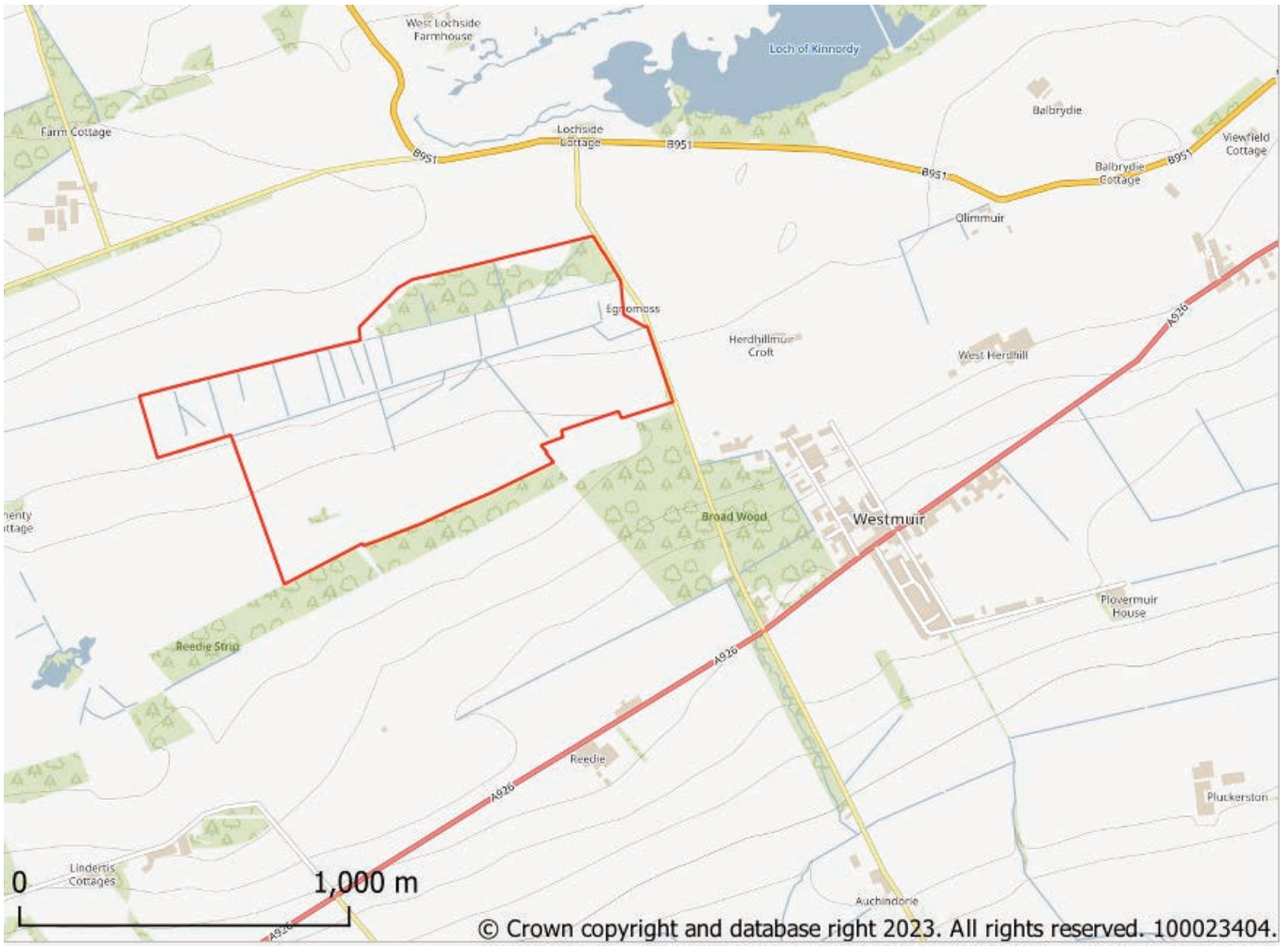
Den of Ogil Reservoir LNCS



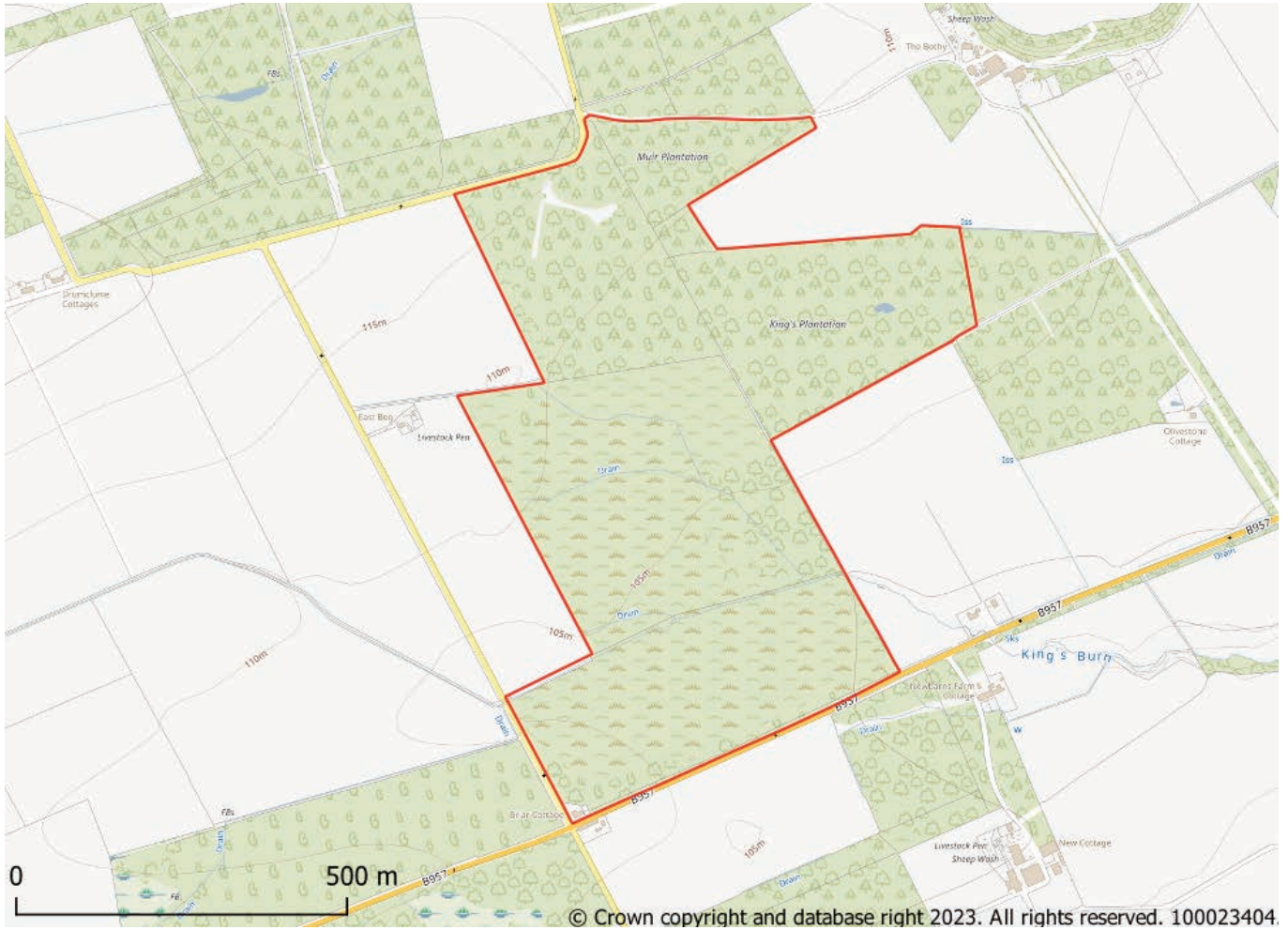
Deuchar Hill LNCS



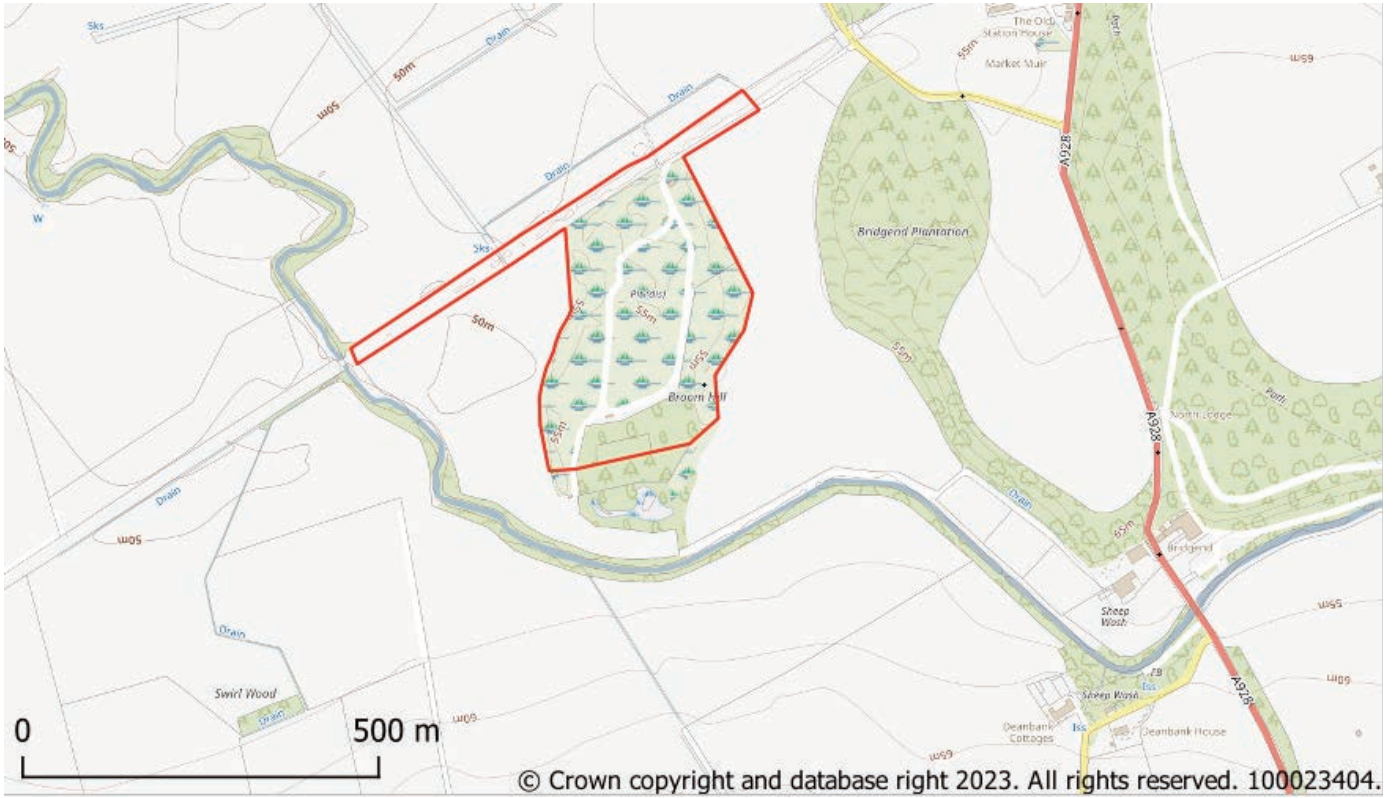
Egno Moss LNCS



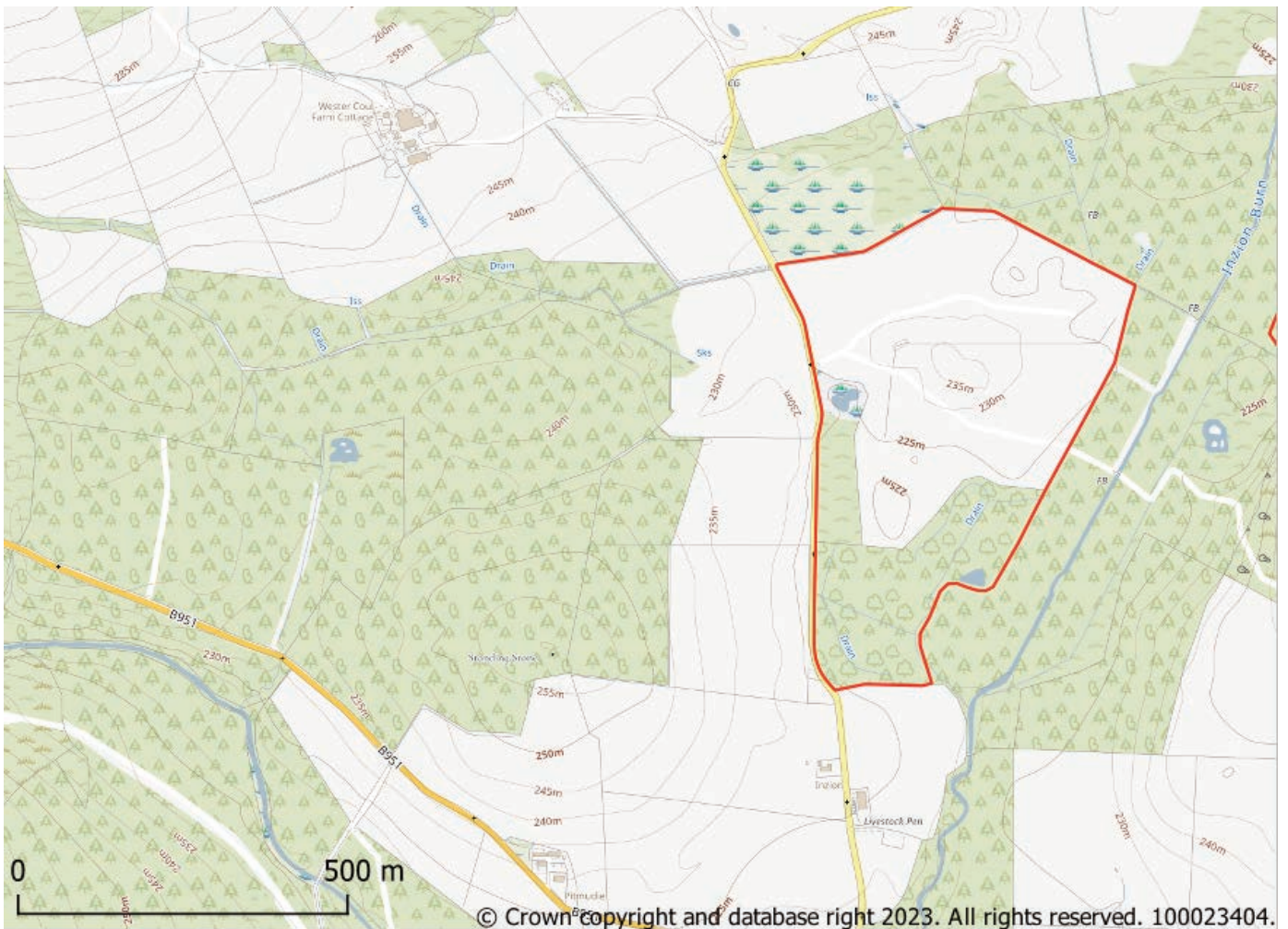
Eskhill LNCS



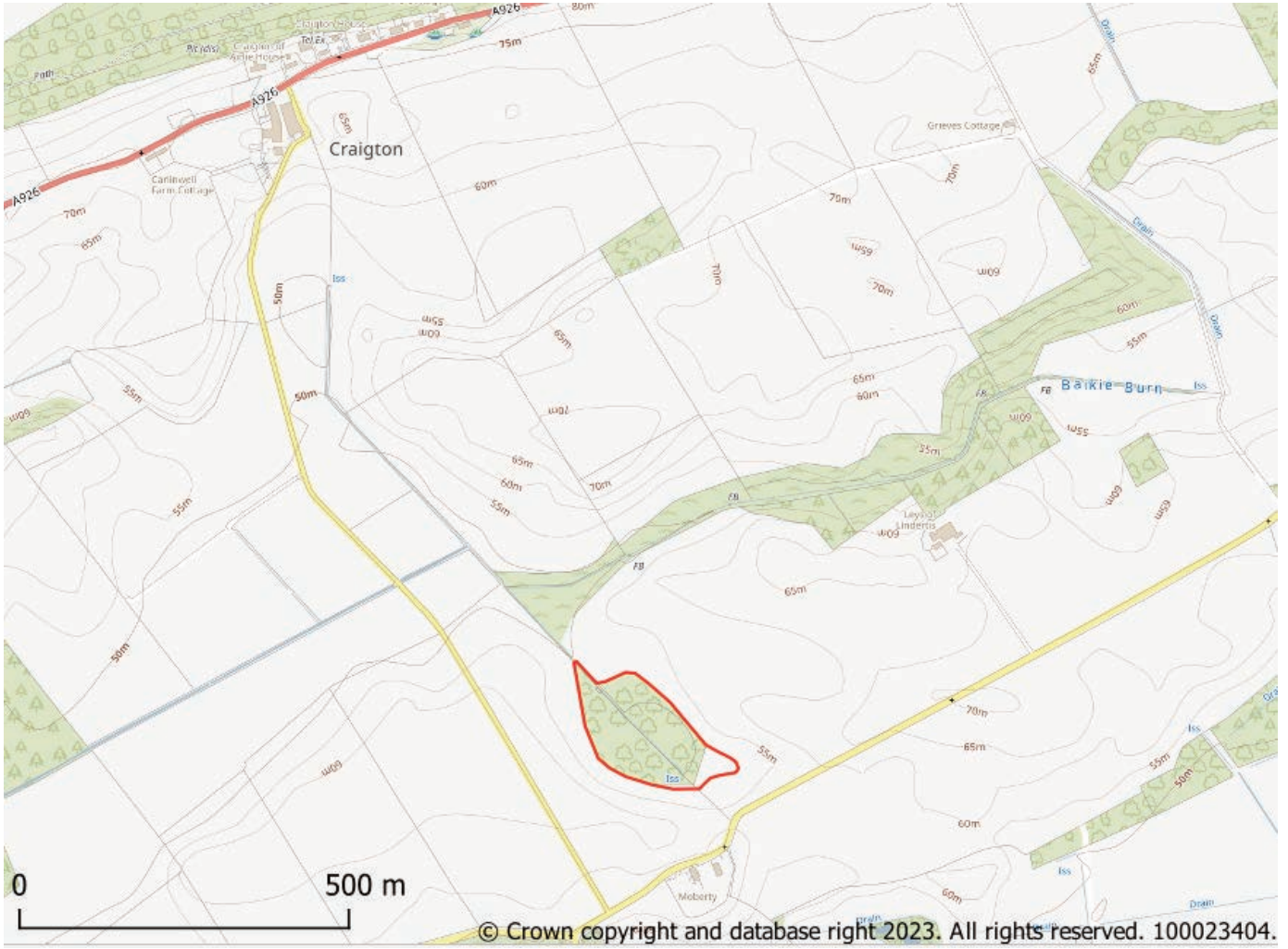
Glamis Disused Sand Pit LNCS



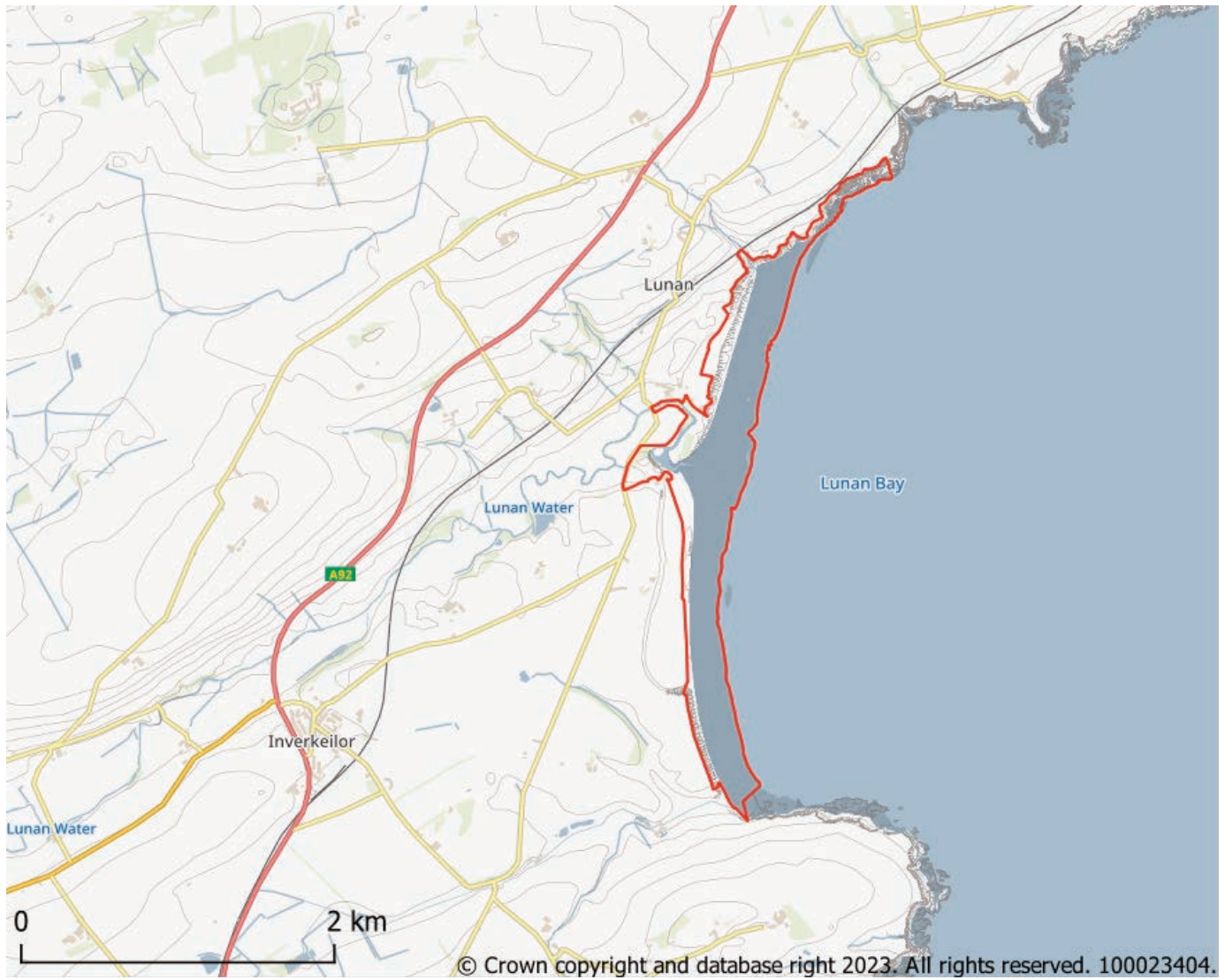
Inzion LNCS



Leys of Lindertis LNCS



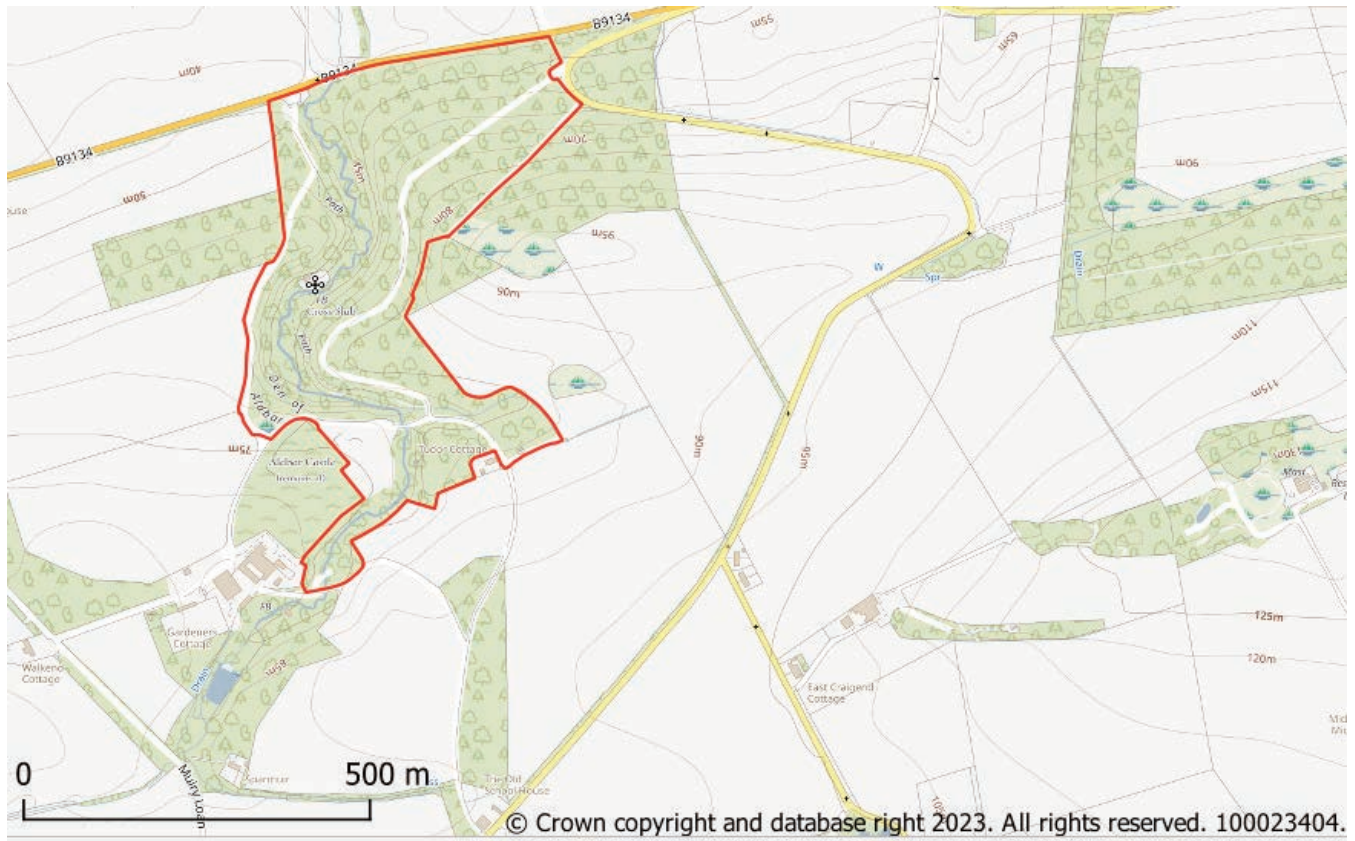
Lunan Bay LNCS



Lundie Bog LNCS



Mains of Aldbar LNCS



Market of Muir, Westmuir LNCS

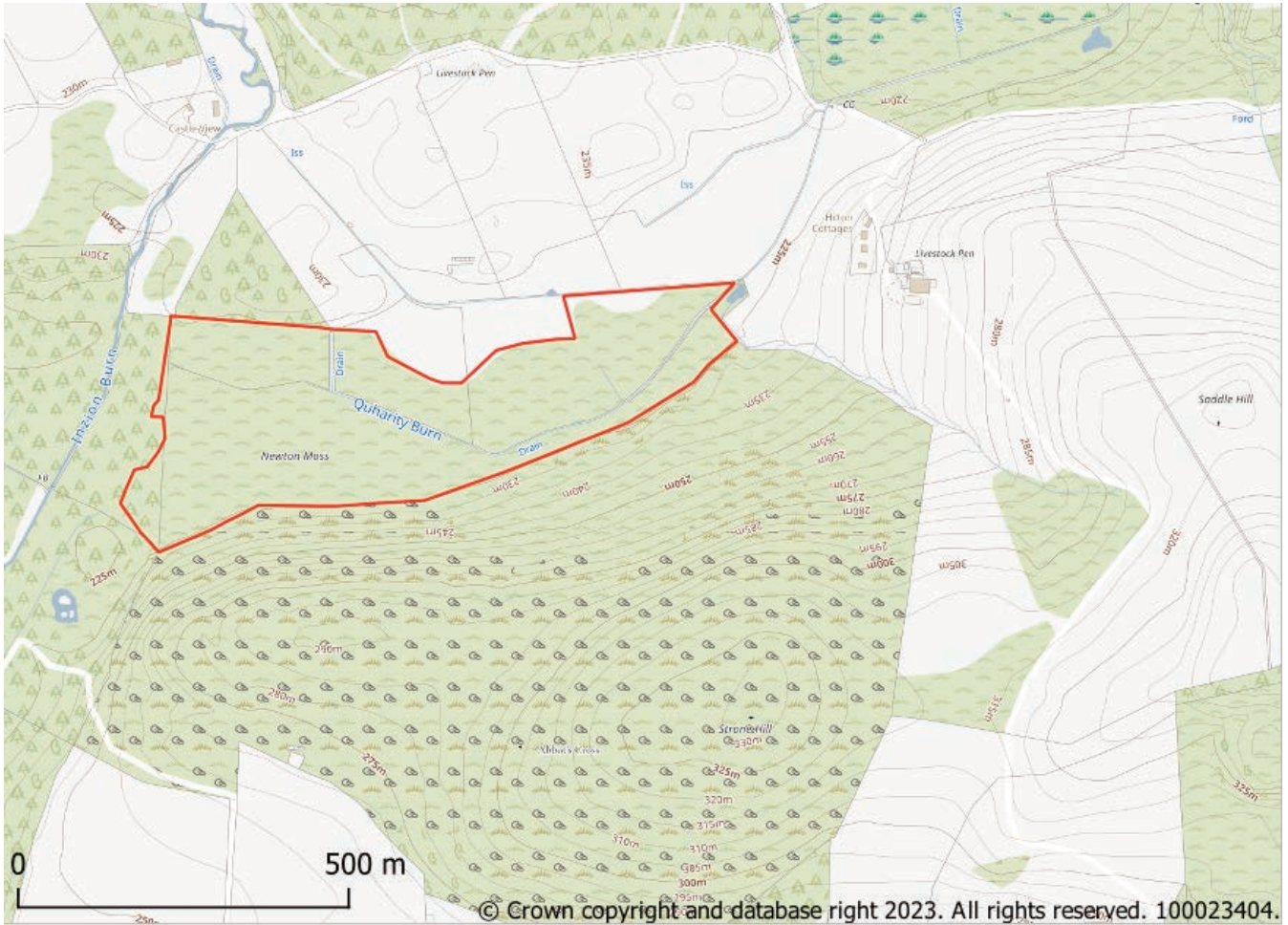


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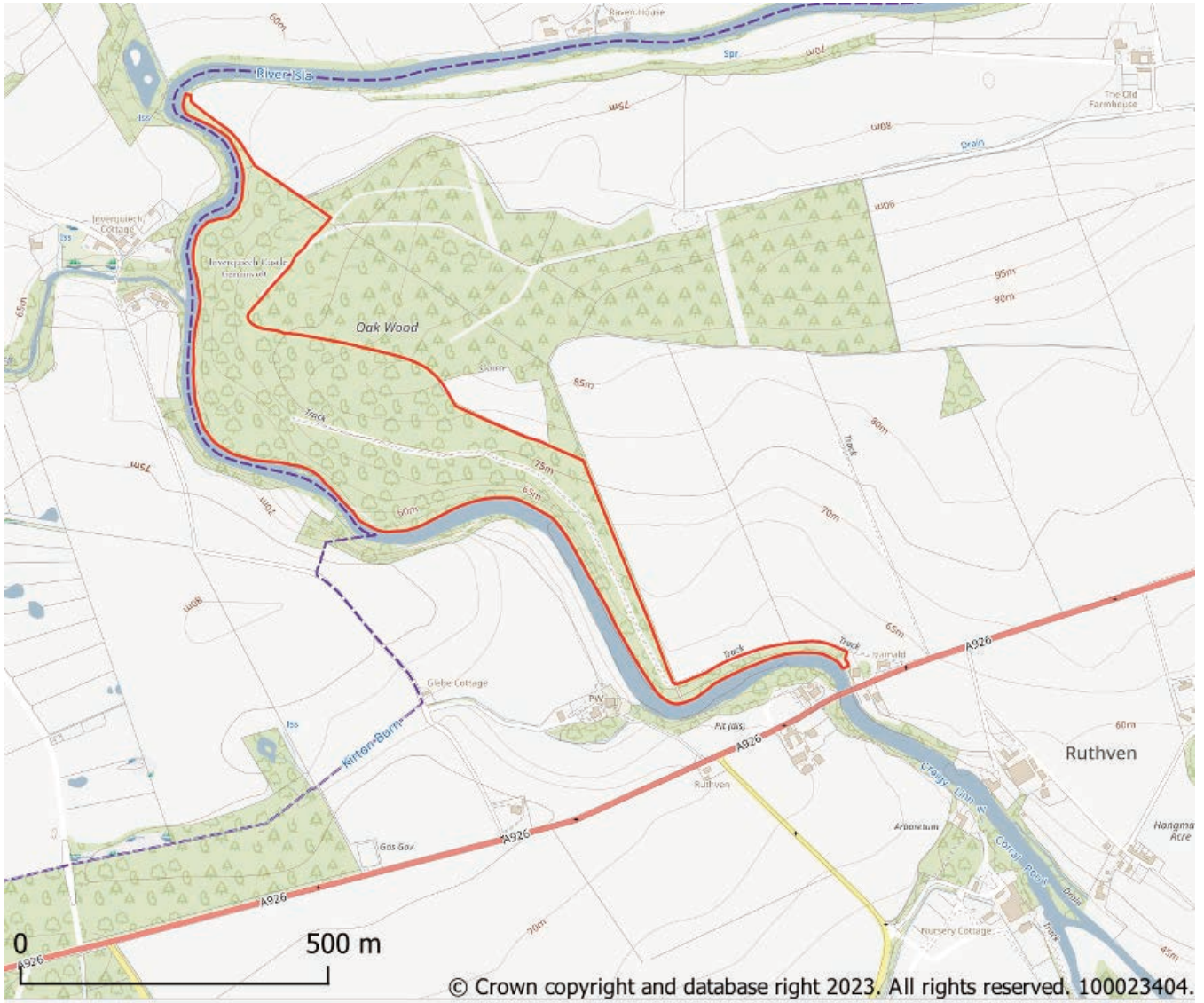
Melgam Water LNCS



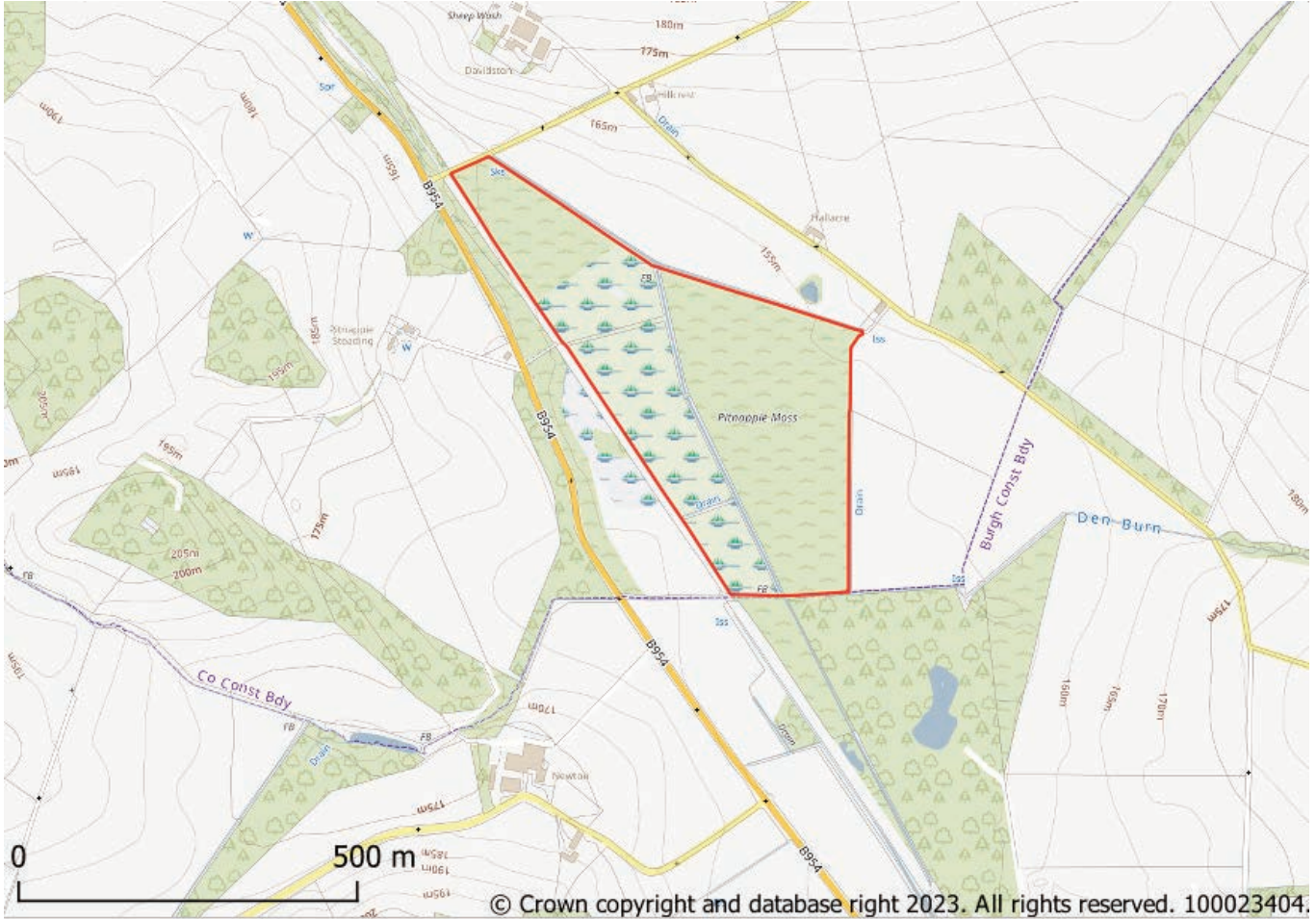
Newton Moss LNCS



Oak Wood LNCS



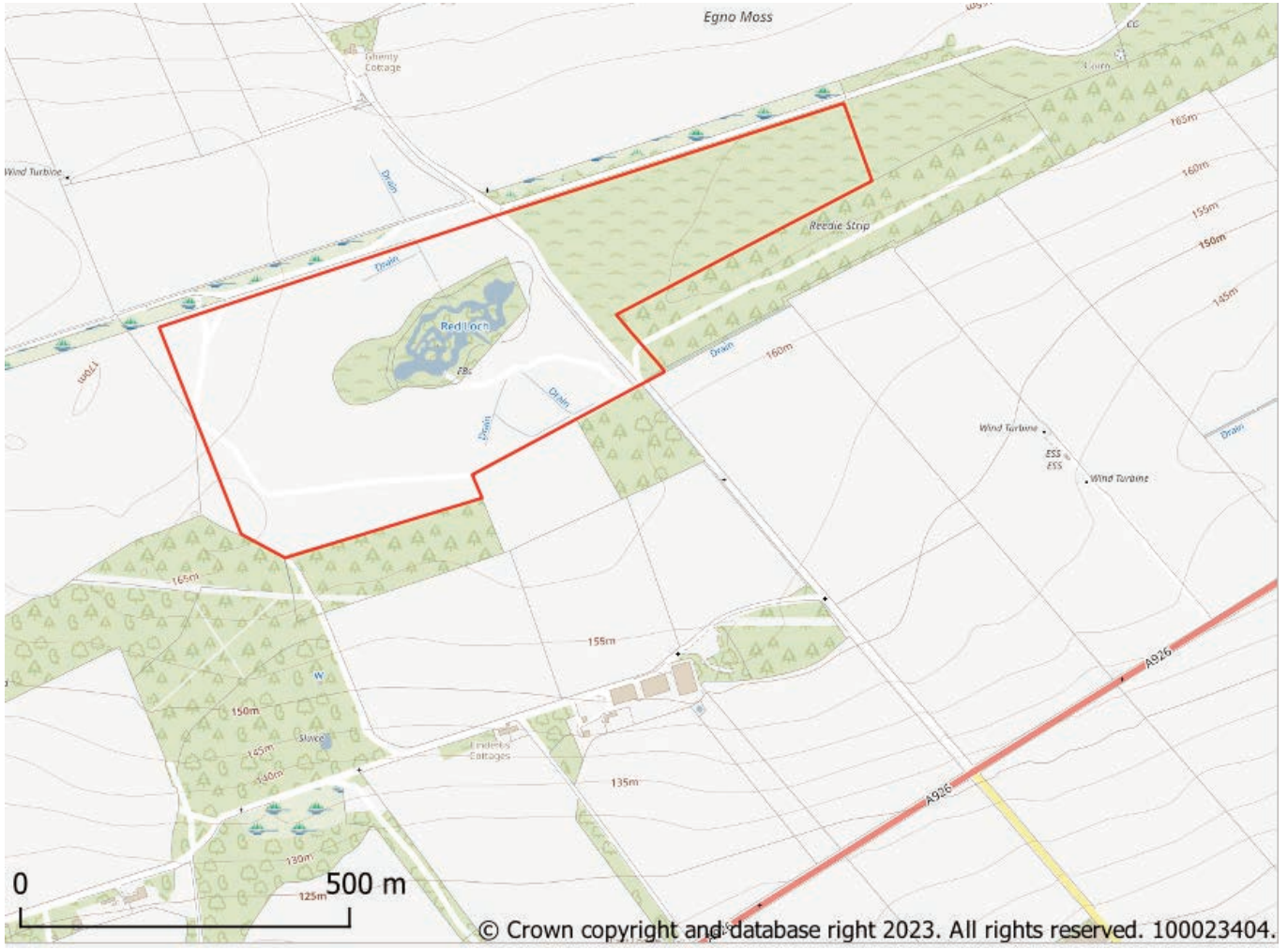
Pitnappie Moss LNCS



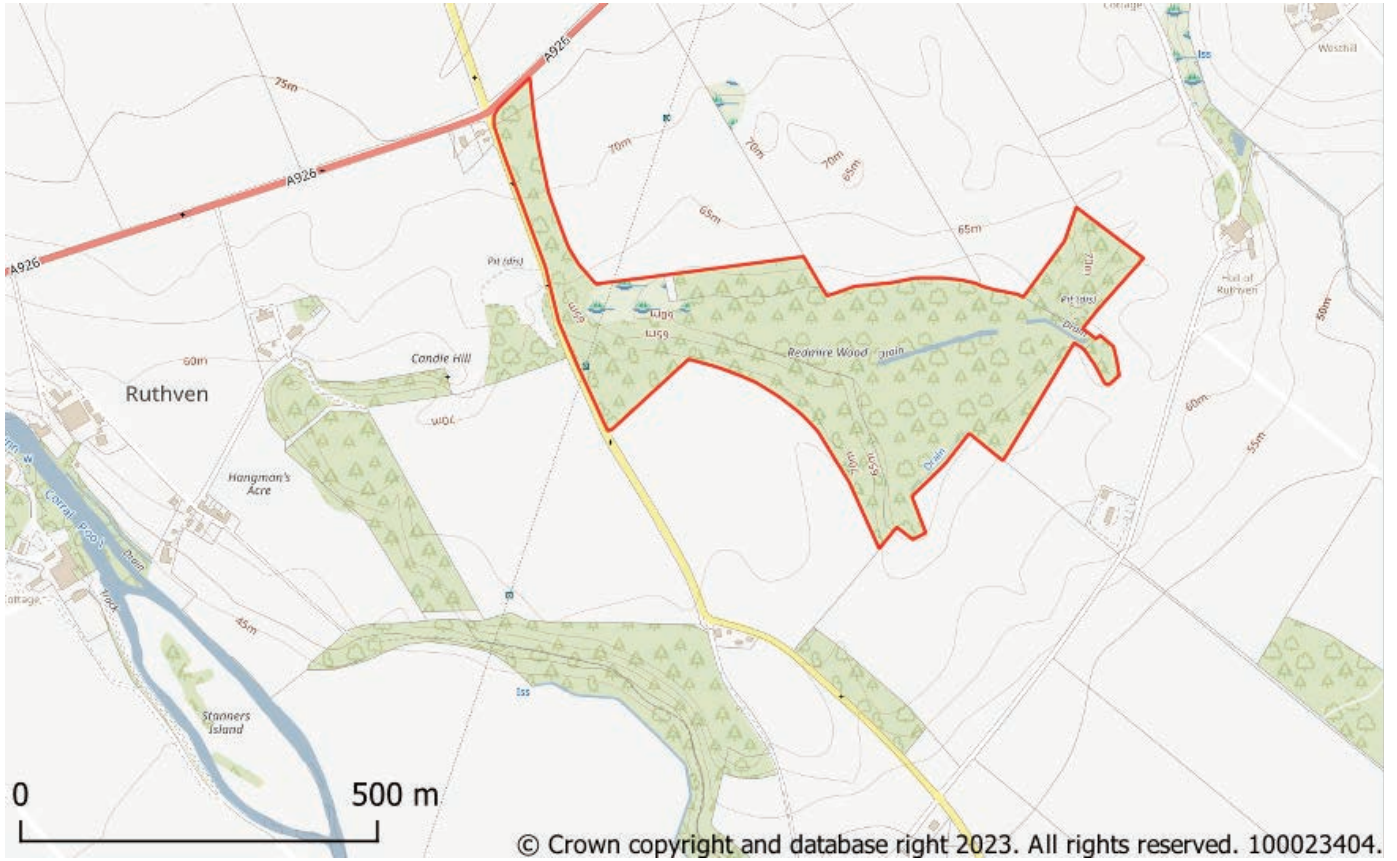
Powmyre LNCS



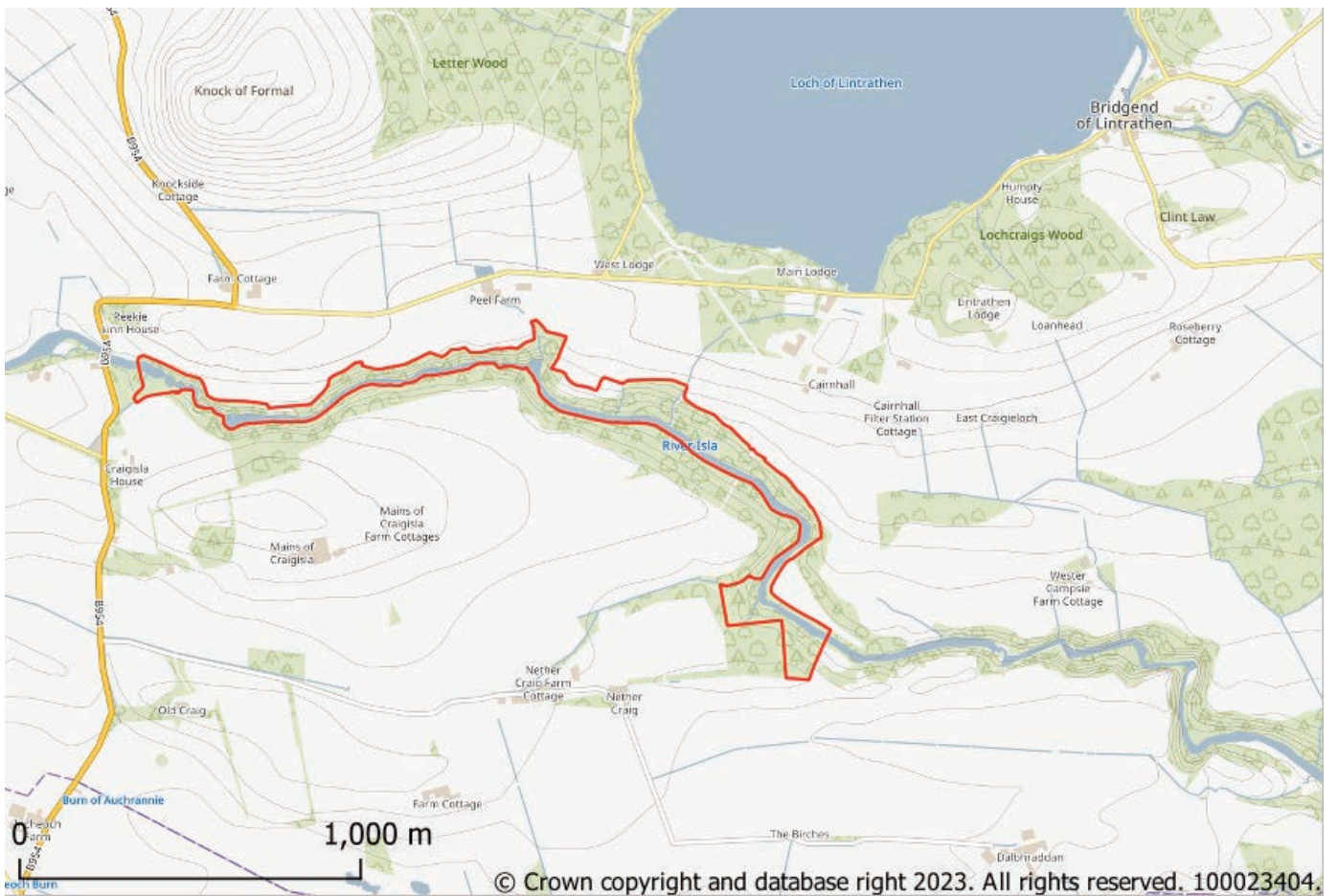
Red Loch LNCS



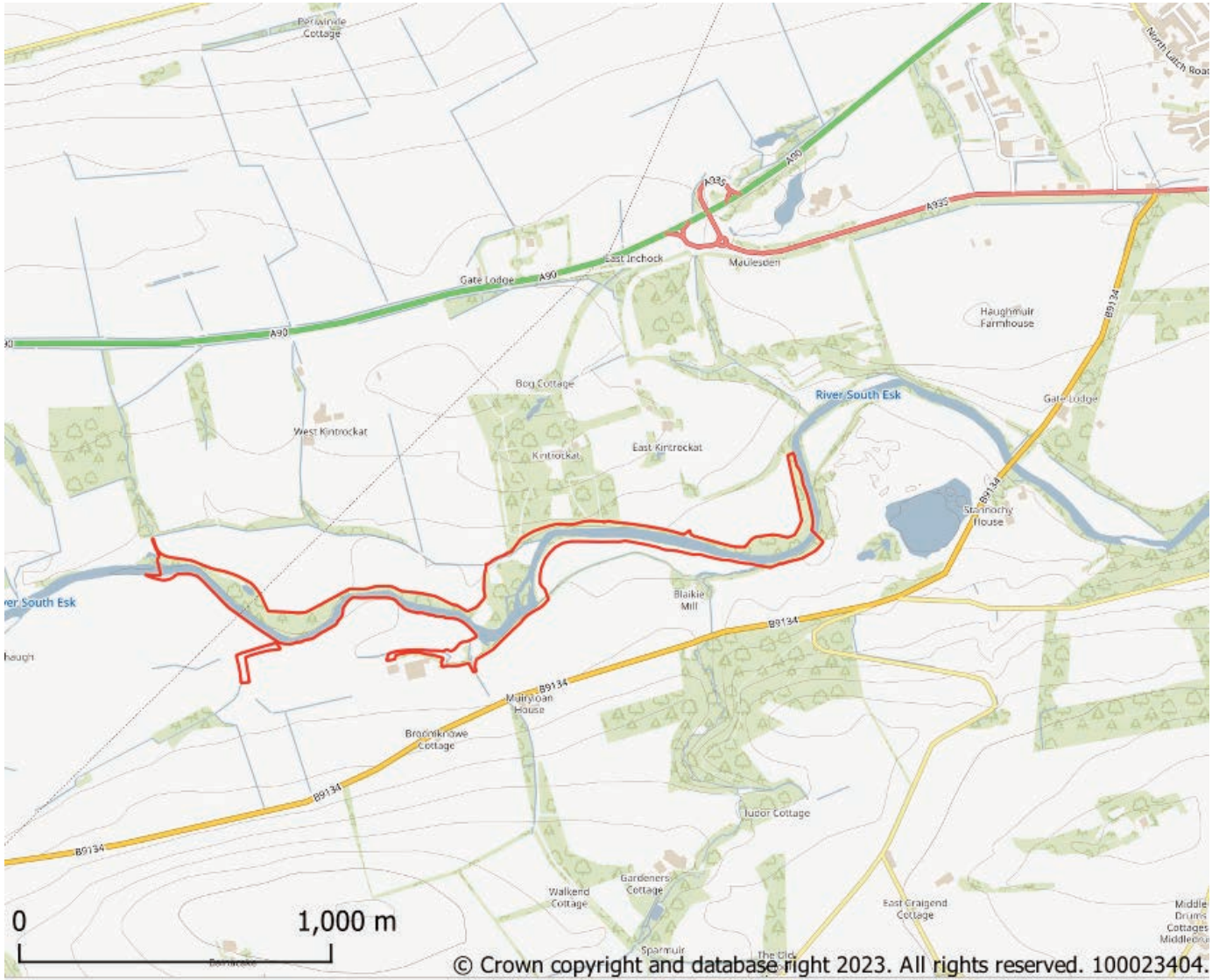
Redmire Wood LNCS



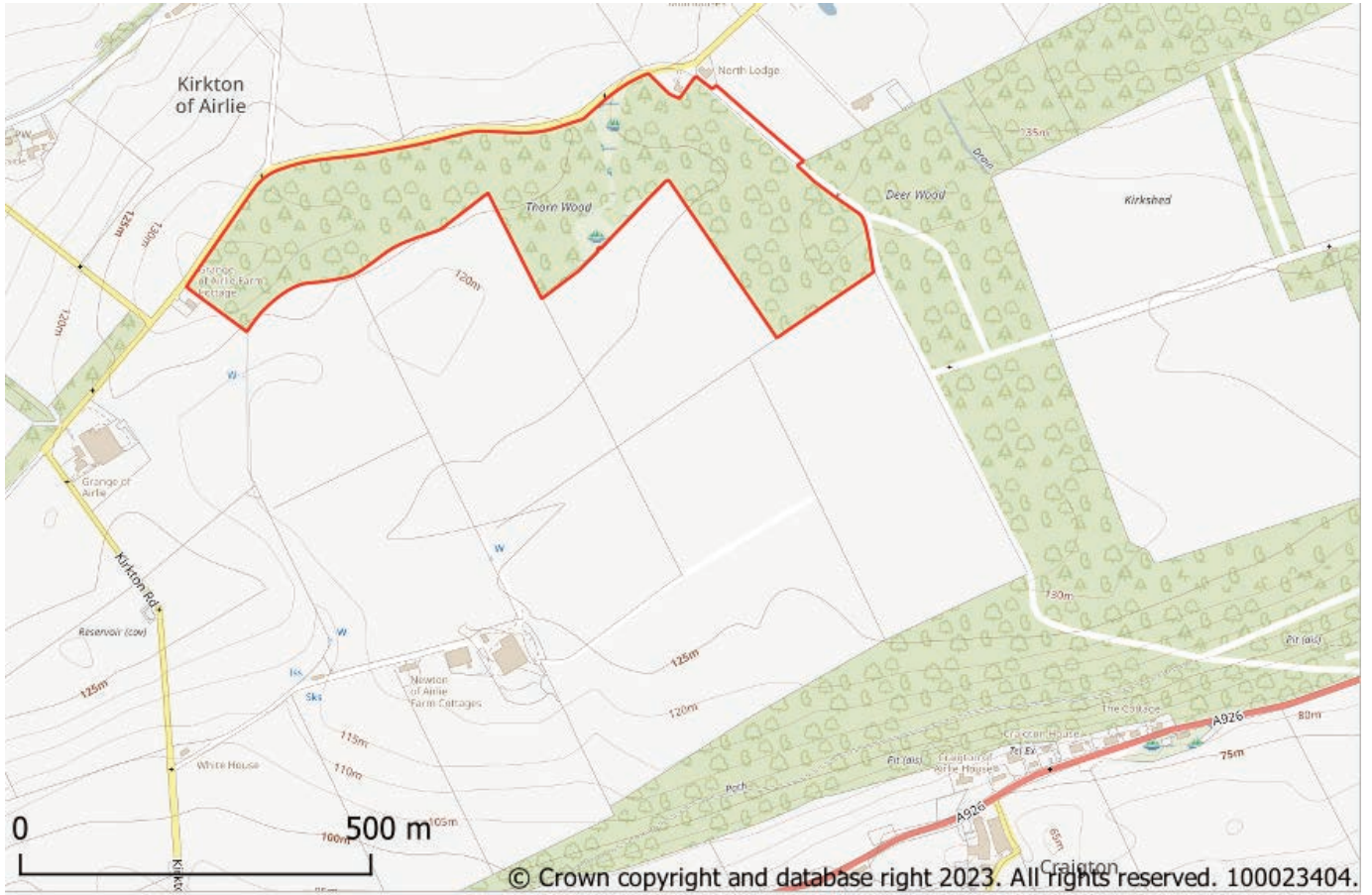
Reekie Linn LNCS



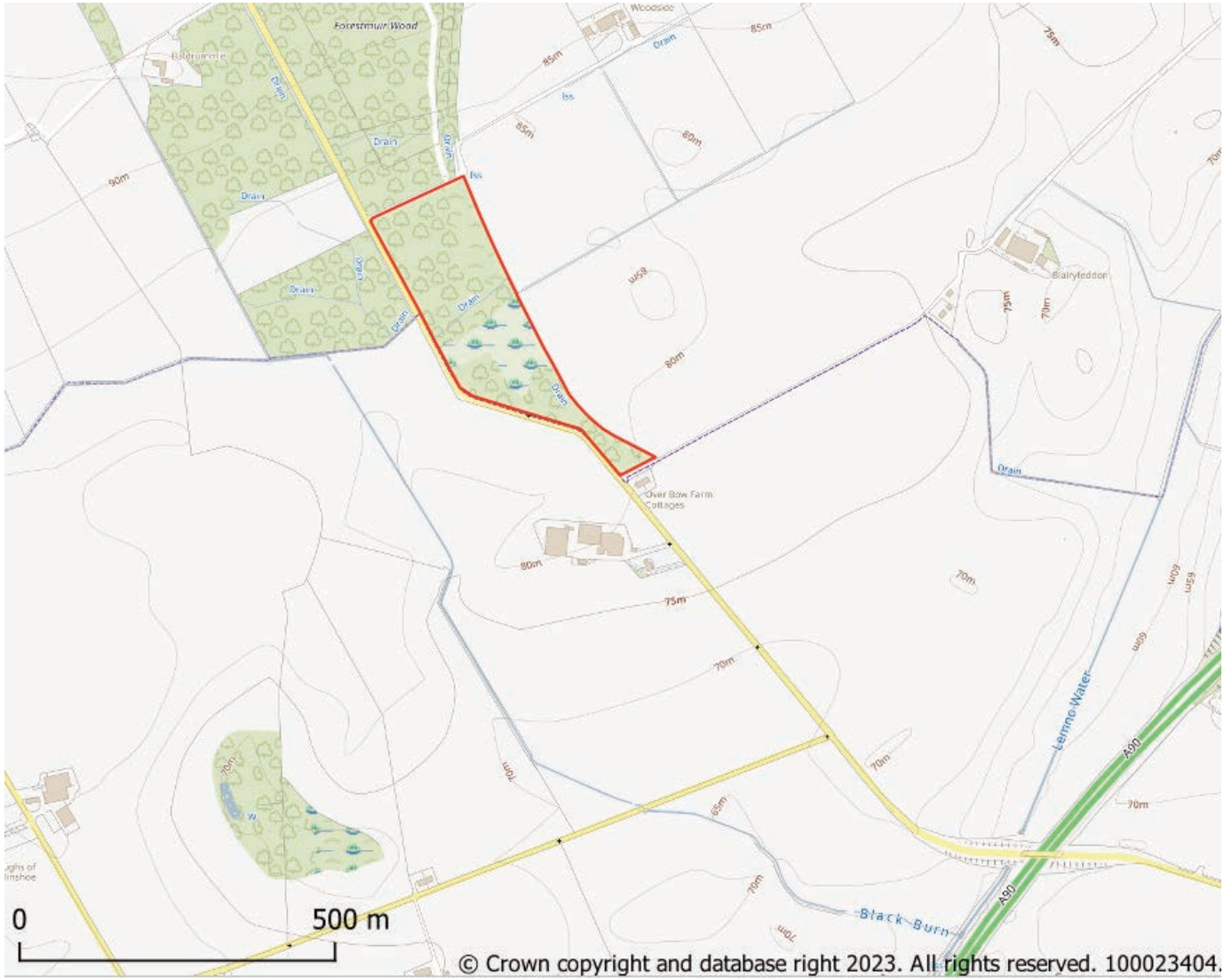
River South Esk Kintrockat LNCS



The Thorn LNCS



Woodside LNCS



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