Scottish & Southern Electricity Networks

TRANSMISSION

Consultation Document – Route Selection

Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

April 2023

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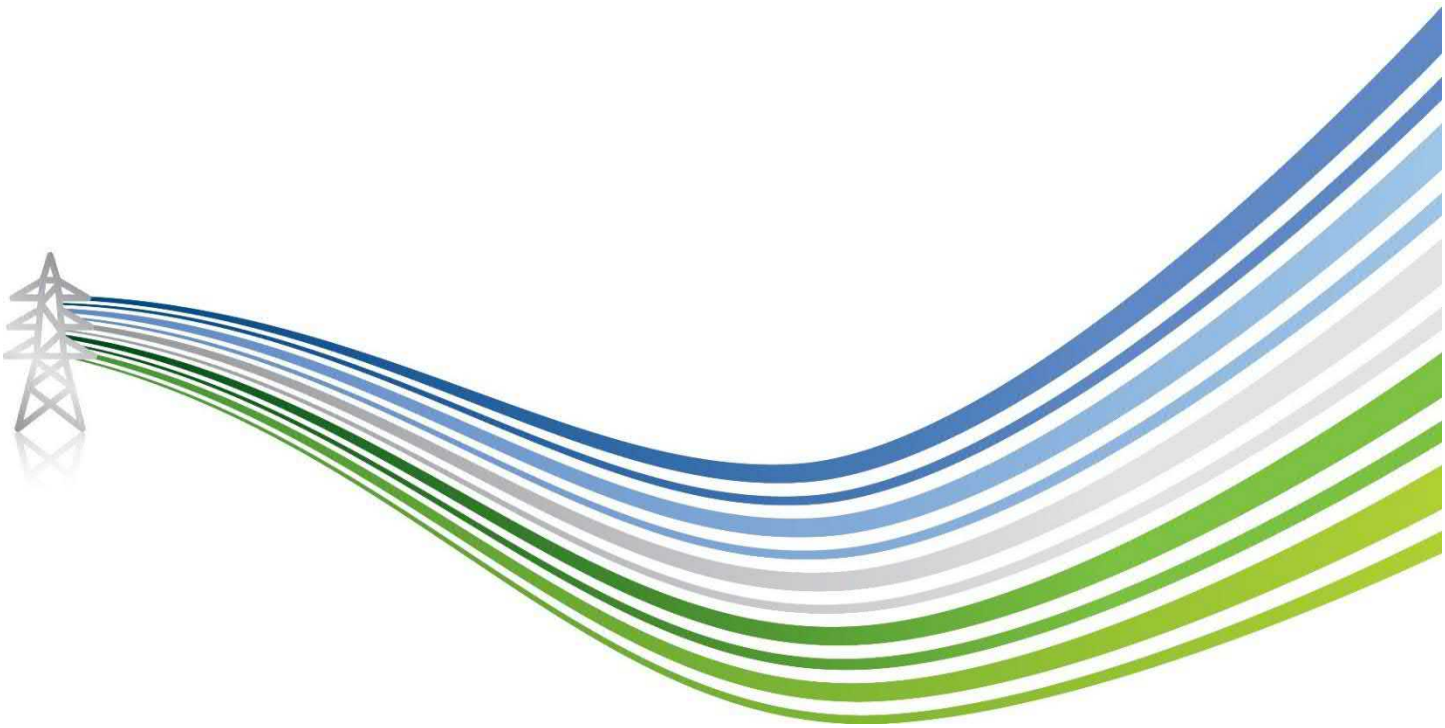

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GLOSSARY

Term	Definition
Alignment	A centre line of an overhead line OHL, along with location of key angle structures.
Amenity	The natural environment, cultural heritage, landscape and visual quality. Also includes the impact of SSEN Transmission's works on communities, such as the effects of noise and disturbance from construction activities.
Ancient Woodland	In Scotland, Ancient Woodland are areas of woodland that have existed since 1750 and are relatively undisturbed by human development. They are considered irreplaceable and have complex biodiversity that have accumulated over hundreds of years.
Birds of Conservation Concern	Birds of Conservation Concern (BoCC) provides the status of all regularly occurring birds in the UK, Channel Islands and Isle of Man. The current version is BoCC 5. Birds of highest conservation concern will appear on the Red List.
Class 1 and Class 2 Peatland	Class 1 – Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas likely to be of high conservation value. Class 2 – Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas of potentially high conservation value and restoration potential.
Consultation	The dynamic process of dialogue between individuals or groups, based on a genuine exchange of views and, normally, with the objective of influencing decisions, policies or programmes of action.
Corridor	A linear area which allows a continuous connection between the defined connection points. The corridor may vary in width along its length; in unconstrained areas it may be many kilometres wide.
Drinking Water Protected Areas	The water in ditches, streams, lochs and possibly groundwater in these areas is protected and likely to be taken to Water Treatment works, where it is treated and provided to the public as drinking water.
Effect	The direct or indirect physical consequence(s) of the proposed corridor option on receptors, under each of the various topic headings.
Electricity System Operator (ESO)	National Grid is the Electricity System Operator (ESO) for Great Britain. The ESO balances electricity supply and demand to ensure the electricity supply.
Environmental Impact Assessment (EIA)	Environmental Impact Assessment. A formal process codified by EU directive 2011/92/EU, and subsequently amended by Directive 2014/52/EU. The national regulations are set out in The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. The EIA process is set out in Regulation 4(1) of the regulations and includes the preparation of an EIA Report by the developer to systematically identify, predict, assess and report on the likely significant environmental impacts of a proposed project or development.
Gardens and Designed Landscapes (GDLs)	The Inventory of Gardens and Designed Landscapes lists those gardens or designed landscapes which are considered by a panel of experts to be of national importance.
Gigawatt (GW)	One billion watts.
Ground Water Dependent Terrestrial Ecosystem (GWDTE)	Wetlands which critically depend on groundwater flows. They are safeguarded by the Water Framework Directive (WFD) and are sensitive to hydrological and ecological changes.
Habitat	Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities.
High Voltage Direct Current (HVDC)	A high voltage, direct current (HVDC) electric power transmission system uses direct current for electric power transmission, in contrast to the more common alternating current systems. Most HVDC links use voltages between 100 kV and 800 kV.
Kilovolt (kV)	One thousand volts.
Landscape Character Type (LCT)	A distinct, recognisable and consistent pattern of elements in a landscape that differentiate the area from another.

Term	Definition
Level of Impact	The outcome of a comparative appraisal of the combination of effects within a specific topic along a specific corridor option after a consideration of the potential for mitigation, using professional judgement based on experience.
Listed Building	Building included on the list of buildings of special architectural or historic interest and afforded statutory protection under the 'Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997' and other planning legislation. Classified categories A – C(s).
Local Nature Reserve	Areas of natural heritage that are locally important.
Micrositing	The process of positioning individual structures to avoid localised environmental or technical constraints.
Mitigation	Term used to indicate avoidance, remediation or alleviation of adverse impacts.
National Nature Reserve	Areas of natural heritage that are nationally important.
National Scenic Area (NSA)	A national level designation applied to those landscapes considered to be of exceptional scenic value.
Network Options Assessment (NOA)	The National Grid's Network Options Assessment (NOA) provides their recommendation for which network reinforcement projects should receive investment, and when.
Overhead line (OHL)	An electric line installed above ground, usually supported by lattice steel towers or poles.
Plantation Woodland	Woodland of any age that obviously originated from planting.
RAG Rating	A Red, Amber, Green rating provided to assess the potential impact of the proposed OHL.
Route	A linear area of approximately 1 km width (although this may be narrower/wider in specific locations in response to identified pinch points / constraints), which provides a continuous connection between defined connection points.
Routeing	The work undertaken which leads to the selection of a Proposed Alignment, capable of being taken forward into the consenting process under Section 37 of the Electricity Act 1989.
Schedule 1 Species	Birds listed on the Schedule 1 of the Wildlife & Countryside Act 1981, of which it is an offence to intentionally or recklessly disturb at, on or near an 'active' nest.
Scheduled Monument	A monument which has been scheduled by the Scottish Ministers as being of national importance under the terms of the 'Ancient Monuments and Archaeological Areas Act 1979'.
Semi-natural Woodland	Woodland that does not obviously originate from planting. The distribution of species will generally reflect the variations in the site and the soil. Planted trees must account for less than 30% of the canopy composition
Sites of Special Scientific Interest (SSSI)	Areas of national importance. The aim of the SSSI network is to maintain an adequate representation of all natural and semi-natural habitats and native species across Britain.
Span	The section of overhead line between two structures.
Special Area of Conservation (SAC)	An area designated under the EC Habitats Directive to ensure that rare, endangered or vulnerable habitats or species of community interest are either maintained at or restored to a favourable conservation status.
Special Landscape Area (SLA)	Landscapes designated by councils, which are considered to be of regional/local importance for their scenic qualities.
Special Protection Area (SPA)	An area designated under the Wild Birds Directive (Directive74/409/EEC) to protect important bird habitats. Implemented under the Wildlife and Countryside Act 1981.
Stakeholders	Organisations and individuals who can affect or are affected by SSEN Transmission works.
Study Area	The area within which the corridor, route and alignment study takes place.

Term	Definition
The National Grid	The electricity transmission network in the Great Britain.
Volts	The international unit of electric potential and electromotive force.
Wild Land Area (WLA)	Those areas comprising the greatest and most extensive areas of wild characteristics within Scotland.

PREFACE

This Consultation Document has been prepared by WSP UK Ltd. on behalf of Scottish and Southern Electricity Networks Transmission (SSEN Transmission) to seek comments from all interested parties on the Preferred Routes identified for an overhead line (OHL) to connect into new substation sites at Beauly, Blackhillock, New Deer and Peterhead.

The Consultation Document is available online at the project website:

https://www.ssen-transmission.co.uk/projects/beauly-blackhillock-new-deer-peterhead-400kv/

To complement this Consultation Document, a digital Consultation Document has been developed, which presents the key information included herein, alongside interactive maps and images. The digital Consultation Document can be accessed online via:

https://pinpointgis.wsp.com/portal/apps/storymaps/stories/7ba958a26c6a4da596e080cf3763aa23

Over the coming months SSEN Transmission will be actively engaging with Statutory Consultees and stakeholders across the study area to further understand constraints and identify potential opportunities. Public consultation events detailing the proposals described in this document will be held at the following times:

Monday 17th April 2023 (2-7 pm) Peterhead – Balmoor Stadium	Monday 24th April 2023 (2-7 pm) Elgin – UHI Moray College
Tuesday 18th April 2023 (2-7 pm) New Deer Public Hall	Tuesday 25th April 2023 (2-7 pm) Forres Town Hall
Wednesday 19th April 2023 (2-7 pm) Turriff – Baden Powell Centre	Wednesday 26th April 2023 (2-7 pm) Inverness – Kingsmill Hotel
Thursday 20th April 2023 (2-7 pm) Keith – Longmore Hall	Thursday 27th April 2023 (2-7 pm) Beauly – Phipps Hall
Friday 21st April 2023 (2-7 pm) Huntly – Stewart Hall	

Comments on this Consultation Document should be sent to:

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All comments are requested by Friday 9th June 2023.

EXECUTIVE SUMMARY

In order to support the continued growth in onshore and offshore renewables across the North of Scotland, supporting the country's drive towards Net Zero, further investment in infrastructure is needed to connect this renewable power and transport it from source to areas of demand across the country.

Beauly to Peterhead has been identified by SSEN Transmission as a key corridor in establishing this required reinforcement, connecting into new substation sites at Blackhillock and New Deer along the way.

This project requires new 400 kV connection infrastructure, which is expected to be overhead line (OHL). Following the establishment of the new 400kV connection, the existing 132 kV OHL from Beauly to Knocknagael will be removed.

The Proposed Development is in line with SSEN Transmission's commitment and licence obligation to facilitate the connection of renewables generators to the grid through an economical, efficient and coordinated approach to transmission reinforcement.

During the previous stage of the project, a Proposed Corridor was selected following statutory and non-statutory stakeholder and public consultation. Route options were identified within this Proposed Corridor, which provided feasible areas for the OHL to be developed, and from which a Preferred Route has been selected that provides an optimum balance of environmental, technical and economic factors. This Consultation Document invites comments from all interested parties on the Preferred Route.

It is important to note that the Preferred Route presented herein is preferred based on the outcome of the environmental, technical and economic analysis, and does not take consultation into account. Once the statutory, non-statutory and public consultation is complete, consultee comments will be considered, which may alter the Preferred Route before it is taken forward as the Proposed Route for alignment selection.

Following confirmation of the Proposed Route, potential alignment options will be identified within the Proposed Route, which will then be subject to further appraisal and consultation to reach a Proposed Alignment.

On identification of a Proposed Alignment, Section 37 consent under the Electricity Act 1989 will be sought from the Energy Consents Unit of the Scottish Government for proposed new OHL infrastructure.

When providing comments and feedback on this Consultation Document, SSEN Transmission would be grateful for your consideration of the questions below:

- Have we explained the need for this Project adequately?
- Have we explained the approach taken to select the Preferred Route adequately?
- Are there any factors, or environmental features, that you consider may have been overlooked during the Preferred Route selection process?
- Do you feel, on balance, that the Preferred Route selected is the most appropriate for further consideration at the alignment selection stage?

1. INTRODUCTION

1.1 Purpose of the Document

This Consultation Document has been prepared by WSP UK Ltd on behalf of Scottish and Southern Electricity Networks Transmission (SSEN Transmission). SSEN Transmission, operating under licence held by Scottish Hydro Electric Transmission plc, owns, operates and develops the high voltage electricity transmission system in the north of Scotland and remote islands. This Consultation Document invites comments from all interested parties on the Preferred Route identified for a new 400 kilovolt (kV) overhead line (OHL) to connect into new substation sites at Beauly, Blackhillock, New Deer and Peterhead.

This Consultation Document describes the route options identified, the options appraisal undertaken, the alternatives considered during the selection of route options and the identification of the Preferred Route. Comments are now sought from statutory authorities, key stakeholders, elected representatives and the public on the route selection process and the Preferred Route identified.

All comments received will inform further consideration of the Preferred Route, and subsequent alignment options therein.

1.2 Document Structure

This report is comprised of seven sections as follows:

1. Introduction – setting out the purpose of the Consultation Document and document structure.
2. The Proposals – describes the need for the proposals, the strategic alternatives considered, the proposed technology solution, a description of the proposals and the typical construction methods.
3. Route Selection Process – sets out the route selection process and methodology that has been applied to date to derive a Preferred Route.
4. Potential Routes – summarises the potential routes for each section.
5. Comparative Analysis of Potential Routes – summarises the key considerations of each route from an environmental, engineering and economic perspective, and provides a comparative appraisal of each route option in order to select a Preferred Route.
6. Preferred Route – summarises the overall Preferred Route.
7. Consultation on the Proposals – invites comments on the route assessment process and identification of the Preferred Route.

1.3 Next Steps

As part of the consultation exercise, comments are sought from members of the public, statutory consultees and other key stakeholders on the Preferred Route put forward in this report.

A Report on Consultation will be produced which will document the consultations received, and the decisions made in light of these responses.

Following the identification of a Proposed Route, further technical and environmental surveys will be undertaken to identify a Preferred Alignment within the Proposed Route. Consultation on a Preferred Alignment will be undertaken in a similar manner to the identification of a Proposed Route, in late 2023.

2. THE PROPOSALS

2.1 The Need for the Project

In order to support the continued growth in onshore and offshore renewables across the north of Scotland, supporting the country's drive towards Net Zero, further investment in network infrastructure is needed to connect this renewable power and transport it from source to areas of demand across the country.

Extensive studies completed to inform the Electricity System Operator' (ESO)'s 'Pathway to 2030' Holistic Network Design (HND) study[1] have identified the need to reinforce the onshore corridor from Beauly to Peterhead, via Blackhillock and New Deer. Providing a new 400 kV connection between these locations enables the significant power transfer needed to take power from large scale onshore and offshore low carbon renewable generation connecting from the Western Isles (via a 1.8 GW subsea high voltage direct current (HVDC) link) and from connections north of Beauly (via a new Spittal to Loch Buidhe to Beauly 400 kV OHL), to the east at Peterhead and offshore via two subsea HVDC links to England. The additional connection points into Blackhillock and New Deer are also needed to pick up power on route from additional large scale onshore and offshore low carbon renewable generation required to connect into the north east of Scotland.

This need was supported by instruction to 'proceed' in National Grid's Network Options Assessment (NOA) Refresh Report 2021/22[2].

2.2 Project Overview

To meet the required reinforcements of SSEN Transmission's onshore infrastructure between Beauly and Peterhead, the following projects are to be taken forward:

Beauly to Blackhillock 400 kV

Construction of a new 400 kV double circuit OHL between Beauly and Blackhillock, comprising:

- construction of approximately 110 kilometres (km) of new 400 kV double circuit OHL between new substation sites proposed at Beauly and Blackhillock; and
- following the establishment of the 400 kV OHL, dismantling the existing 132 kV double circuit OHL from Beauly to Knocknagael.

Blackhillock to Peterhead via New Deer 400 kV

There is a separate requirement to construct a new 400 kV double circuit OHL from Blackhillock to Peterhead via New Deer, which is necessary to facilitate a second eastern high-voltage, direct current (HVDC) link from Peterhead. This project will comprise:

- construction of approximately 60 km of 400 kV double circuit OHL between new substation sites at Blackhillock and New Deer; and
- construction of approximately 22 km of 400 kV double circuit OHL between new substation sites at New Deer and Peterhead.

The new substations required at Beauly, Blackhillock, New Deer and Peterhead will be located near to SSEN Transmission's existing substations in these locations, with site selection studies currently underway. The substation developments are being progressed separately and do not form part of this OHL project.

[1] National Grid ESO (July 2022). Pathway to 2030: A holistic network design to support offshore wind deployment for net zero. Available: https://www.nationalgrideso.com/future-energy/the-pathway-2030-holistic-network-design

[2] National Grid ESO (July 2022). Network Options Assessment 2021/22 Refresh. Available: https://www.nationalgrideso.com/research-publications/network-options-assessment-noa

2.3 Alternative Options Considered

In the initial identification of the requirement for this project, many onshore and offshore reinforcement options were assessed by the ESO in the HND study. The HND includes the offshore transmission network, the onshore works essential to facilitate each connection and the network needed to transport the electricity around the country. The ESO led on the offshore transmission network optioneering and design, exploring both radial and coordinated solutions for the connection of new offshore wind schemes, aiming to balance the needs of consumers, developers, communities and the environment.

2.3.1 Subsea Cable

Solutions proposed by SSEN Transmission for the significant west to east power transfer to be assessed in the HND included a subsea link from Spittal to Peterhead. Onshore solutions included a Spittal to Loch Buidhe to Beauly 400 kV connection, a Beauly to Blackhillock 400 kV connection and a Blackhillock to New Deer to Peterhead 400 kV connection. The HND study identified the need for both the offshore solution, as well as the onshore reinforcement options between Spittal and Peterhead. This is because, to fully utilise offshore subsea links, the onshore network is also required to be strengthened.

In the HND, the ESO explored additional solutions to coordinate offshore connections and to establish a bootstrap/link between two or more interface points on the onshore transmission system, which would potentially alleviate the need for the onshore reinforcements. However, these additional offshore solutions were determined as being far too expensive compared to the solutions provided by SSEN Transmission and would result in large increase in cost to the GB consumer. Of additional consideration was the requirement to create connection points for new generation at Blackhillock and New Deer, which the existing network is unable to accommodate.

Prior to publication of the HND findings, SSEN Transmission completed an internal study considering the feasibility of different technology options for the Beauly to Blackhillock to New Deer to Peterhead transfer, similarly concluding that an onshore solution was preferable, with key considerations summarised below:

- **Transfer capability:** An individual onshore solution is currently capable of transferring approximately 5 GW of power, which is more than double the transfer capability of an individual offshore solution at approximately 1.3 to 2 GW.
- **Value to customer**: An onshore OHL solution is generally substantially more cost effective than an offshore subsea cable solution, particularly when taking into account the additional transfer capability that an onshore solution provides. An offshore HVDC solution only becomes more cost effective at larger distances, when a more direct reinforcement route is available compared to the equivalent AC onshore solution. The requirement to tie into Beauly, Blackhillock and New Deer does not provide this efficiency.
- **Future proofing:** An onshore OHL solution provides the flexibility to be modified over the course of its 40-to-50-year asset life to further increase capacity (i.e. by replacing conductors on the OHL or operating the line at a hotter temperature, as has been done elsewhere on SSEN's network) whereas the offshore HVDC solution's capacity is fixed as the subsea cable and AC to DC converters would need replaced. The onshore solution minimises future disruption and impact of works and improves whole life costs.
- **Supporting infrastructure:** If a subsea cable was used to connect Beauly, Blackhillock, New Deer and Peterhead, due to the distance of the existing substations from the coastline, substantial lengths of onshore infrastructure would still be required to transfer power from the coast to each of the substation locations, with associated community and environmental impacts along the length of these connections. In addition, converter stations would be needed at each of the substation locations, to convert power transferred from DC to AC for connection to the network and back to DC to connect into the next length of subsea cable (due to the lengths of subsea sections HVDC subsea cables would be required, rather than AC). The converter stations would be relatively substantial with additional noise and visual impacts for localised communities. With visual and community impact the key driver for considering offshore

solutions, on balance it was considered that the supporting infrastructure required in this instance reduced the benefits.

- **Maintenance:** Finally, fault detection and restoration of onshore AC solutions is much easier and quicker compared to offshore solutions. A subsea cable fault could result in the outage of the entire offshore solution for approximately 6 months, compared to days/weeks for the onshore AC solution.

There is therefore a requirement for this project to progress using an onshore technology (i.e. either underground cable (UGC) or OHL).

2.3.2 Onshore Underground Cable

To inform early development of this project, a Strategic Connection Options Appraisal was completed to inform selection of a preferred technology. Considering the onshore technology options currently available, the Strategic Connection Options Appraisal concluded that, given the high voltage and relatively long distances to be covered by the connection, an OHL was favoured over a UGC solution, with the following key factors contributing to this conclusion:

- **Cost**: The cost of UGCs is approximately 4-6 times more expensive than an OHL option, therefore not representing the best value for the consumer.
- **Community impact (visual and noise)**: UGCs are often considered to be favourable from a visual and noise impact perspective. However, long distance UGC solutions require additional reactive compensation equipment to maintain stability of the network (for high voltage alternating current (HVAC) cable connections) or converter stations to convert power from direct current (DC) to AC (for HVDC cable connections), creating potential additional visual and noise impacts at points along the route.
- **Land-Use**: To allow sufficient insulation and cable spacing for a 400 kV UGC double circuit, a land width of approximately 50 m is required. Once reinstated, land-use restrictions may apply to this width to avoid risk of cable damage. In comparison, upon completion of the OHL, land use beneath could be returned to low growing vegetation or utilised for agricultural purposes, although an operational corridor is to be kept clear of trees to prevent the likelihood of tree strikes damaging the OHL resulting in a fault. The operational corridor for an OHL depends on the species of trees surrounding the line, but typically a total width of up to 80 m (40 m from centre) would be required.
- **Environment (land take)**: For an OHL, the temporary and permanent impacts of the towers themselves are limited in extent due to the minor ground works required at the footings, with the maximum tower base being approximately 15 m by 15 m. The requirement for additional equipment to support a UGC solution, detailed above, creates additional land requirements in comparison to an OHL. There would also be potential for more significant impacts to geology, soils and sensitive habitats associated with a 50 m construction width for cable installation.
- **Operation and maintenance**: The ease of access to identify and address faults for an OHL is a key benefit in comparison to a UGC option. An OHL also provides improved flexibility and ability to adapt to change if network requirements change in the future (e.g., new conductor technologies provide opportunities to increase capacity on the existing line without creating new routes).

2.4 Proposals Overview

The Proposed Development would comprise steel lattice towers from the SSEN Transmission SSE400 tower suite. The typical height for the SSE400 tower suite is approximately 57 m, with a maximum standard height of up to 68 m[3].

The size of towers and span lengths is generally dependent on three main factors: altitude; weather; and the topography of the route. Towers are typically closer together at high altitudes to withstand the effects of

[3] In certain locations, such as the Caledonian Canal, specific crossing towers may be required which will exceed the maximum height of the SSE400 tower suite and could be in the region of 90 m in height. This is to ensure that all statutory clearance requirements are maintained.

greater exposure to high winds, ice and other weather events. Higher towers may be required in certain locations to maintain the required ground clearance heights, such as at road, river and rail crossings.

The proposed steel lattice towers would support six conductor bundles (2 or 3 wires per bundle) on six cross-arms (three on each side) and an earth wire between the peaks. Typical tower designs can be seen in **Plate 2.1**.

Plate 2.1 – Typical SSE400 steel lattice tower design

2.5 Construction Activities

The main construction elements associated with the Proposed Development are anticipated to include:

- establishment of temporary construction compound(s);
- establishment of permanent stoned access to areas identified as requiring operational access;
- establishment of temporary construction access to areas where permanent access is not operationally required;
- establishment of suitable laydown areas for materials and working areas for tower foundations and erection equipment;
- delivery of components and materials to site;
- undergrounding of distribution overhead lines that cross or are in close proximity to the route;
- undergrounding or realigning of existing transmission 132 kV, 275 kV and 400 kV OHLs where required to clear a corridor for the Proposed Development;
- establishment of temporary diversions of existing OHLs where necessary to enable undergrounding or realignment;
- construction of approximately 200 km of 400 kV double circuit OHL;
- dismantling of existing 132 kV double circuit OHL from Beauly to Knocknagael;
- remedial works would be carried out to reinstate the immediate vicinity, and any ground disturbed to pre-existing condition; and
- inspections and commissioning.

All construction activities will be undertaken in accordance with a Construction Environmental Management Plan (CEMP) which will define specific methods for environmental survey, monitoring and management

throughout construction. A CEMP will be produced by the Principal Contractor and agreed with statutory stakeholders prior to the commencement of construction.

2.6 Programme

Subject to gaining the necessary consents, it is anticipated that construction would commence in 2026, with an estimated completion date of October 2030.

3. ROUTE SELECTION PROCESS

3.1 Introduction

The approach to route selection has been informed by SSEN Transmission's guidance 'Procedures for Routeing OHLs and Underground Cables of 132kV and above'[4]. This guidance considers within it the Holford Rules[5], which sets out a hierarchical approach to routeing which advocates avoiding areas of high amenity value, minimises changes in direction, and takes advantage of topography to minimise visual interaction with other transmission infrastructure.

The guidance document sets out SSEN Transmission's approach to selecting a corridor, route or alignment for an OHL. This document helps SSEN Transmission to meet its obligations under Schedule 9 of the Electricity Act 1989, which requires transmission license holders:

- to have a regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interests; and
- to do what they reasonably can to mitigate any effect that the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.

The guidance develops a process which aims to balance these environmental considerations with technical and economic considerations throughout the project.

The guidance splits a project into the following key stages:

- Stage 0: Routeing Strategy Development;
- Stage 1: Corridor Selection;
- Stage 2: Route Selection;
- Stage 3: Alignment Selection; and
- Stage 4: EIA and consenting.

The stages that are carried out can vary depending on the type, nature of and size of a project and consultation is usually carried out at each stage of the process. The project is currently at Stage 2 Route Selection.

This study has involved the following four key tasks:

- identification of the baseline situation;
- identification of alternative route options;
- environmental analysis of route options; and
- identification of a preferred Route.

3.2 Methodology

3.2.1 Area of Search

The extent of the area of search, hereafter referred to as the study area, has been defined by the Proposed Corridor identified at the end of Stage 1: Corridor Selection as illustrated in **Figure 3.1, 3.2 and 3.3.**

[4] SSEN Transmission (September 2020). Procedures for Routeing Overhead Lines and Underground Cables of 132 kV and above. Revision 2.
[5] Holford Rules: Guidelines for the Routeing of New High Voltage Overhead Transmission Lines with NGC 1992 and SHETL 2003 Notes.

3.2.2 Baseline Conditions

A series of desk-based studies and targeted site visits have been undertaken to identify a broad range of potential constraints and opportunities within the study area, which may be constraints to routeing. This has involved the following activities:

- identification of environmental designated sites and other constraints, utilising GIS datasets available via NatureScot Site Link;
- identification of archaeological designations and other recorded sites, utilising GIS datasets available via Historic Environment Scotland Data Services and Local Historic Environment Teams;
- review of SEPA interactive Flood Risk Mapping;
- review of relevant Local Development Plans (The Highland Council, Moray Council and Aberdeenshire Council) to identify further environmental constraints and opportunities, such as regional level designations or other locations important to the public;
- review of landscape character assessments of relevance to the study area;
- review of Ordnance Survey (OS) mapping (1:50,000 and 1:25,000 and online GIS data sources from OS OpenData) and aerial photography (where available) to identify other potential constraints such as settlement, properties, walking routes, cycling routes etc.;
- extrapolation of OS Vectormap GIS data to identify further environmental constraints including locations of watercourses and waterbodies, roads classifications and degree of slope;
- review of other local information through online and published media such as tourism sites and walking routes;
- identification of existing OHL transmission infrastructure, roads and railway lines within the study area;
- identification of existing and proposed wind farm developments and other third-party infrastructure within the study area;
- review of existing terrain, soil and ground conditions;
- ecological, cultural heritage and landscape site visits and surveys;
- ecological data received from relevant bodies;
- public and private water supply data from local authorities and Scottish Water; and
- feedback obtained during the Corridor Stage stakeholder and public consultation and further ecological, cultural heritage and landscape site visits.

3.2.3 Route Options Identification and Selection Methods

Route options are on average 1 km wide but are more constrained in some areas and up to approximately 2 km in other areas where there are more opportunities for finding OHL alignments. The process for identifying route options within the study area used a combination of the following:

- The constraints were layered onto a map so they may be viewed as a composite 'heat map' and weightings and buffers applied depending on the sensitivity of the constraint, or opportunity. In addition to constraints, some data sets provide opportunities to OHL routeing in line with the Holford Rules, such as running parallel to existing OHLs or roads; these are also built into the heat map. The weightings and parameters were refined following site visits and sensitivity analysis to verify the outputs. The list of constraints, buffers and weightings is presented in **Appendix A.**
- The initial identified route options were refined by a project team including an experienced Landscape Consultant and OHL Engineer to take into account topography, land cover and the Holford Rules, in order to maximise the potential for alignment options within the identified routes, and amending them as necessary.
- The following projects which are running in parallel also needed to be accommodated as they directly impact the route identification process due to the requirement to connect into them:

- New Beauly area Substation;
- Blackhillock 2 Substation;
- New Deer 2 Substation; and
- Peterhead 2 Substation[6].

- Due to the length of the study area, the route options were divided into eleven sections to enable different routes to be selected and be able to connect to one another; the section breaks were therefore generally at locations where there was an opportunity to switch between route options.
- Where there are numerous potential alignments at the section break, 'nodes' have been used to enable flexibility in connecting two Preferred Route options. These connections form part of the alignment stage. For the purpose of this comparative analysis report, commentary on the nodes has not been included as they do not form part of the routeing appraisal and will be considered at Stage 3: Alignment Selection.

3.2.4 Appraisal Method

Environmental Criteria

A series of high-level site appraisals were carried out by experienced professionally qualified individuals in the various specialist fields to enable an informed combined opinion on how the potential environmental effects identified during the baseline studies could influence potential route options. Appraisal of route options has involved systematic consideration against the following environmental topic areas:

- Natural Heritage – designations, protected species, habitats, ornithology, hydrology, geology and hydrogeology.
- Cultural Heritage – designations and cultural heritage assets.
- Proximity to Dwellings – residential properties and other sensitive receptors.
- Landscape and Visual – designations, landscape character and visual amenity.
- Land Use – agriculture, forestry and recreation.

Engineering Criteria

Appraisal of route options has involved systematic consideration against the following engineering topic areas:

- Infrastructure Crossing – major crossings and road crossings.
- Environmental Design – elevation, atmospheric pollution, contaminated land and flooding.
- Ground Conditions – terrain.
- Construction/ Maintenance – access.
- Proximity – wind farms, communication masts, urban environments and metallic pipelines.

Economic Criteria

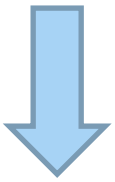
Appraisal of route options has involved systematic consideration against the following economic topic areas:

- Capital costs – construction, diversions, public road improvements, tree felling and land assembly.
- Operational costs – inspections and maintenance.

3.2.5 Comparative Appraisal

A Red-Amber-Green (RAG) rating has been applied to each topic area within each section, indicating potential impacts. This rating is based on a four-point scale as follows:

[6] These are the initial reference names for the substation projects, with the final name of each substation to be confirmed following the completion of site selection studies.

Performance	Comparative Appraisal	
Most Preferred	**No Impact**	Negligible, or no potential effects
	**Lower Impact**	Potentially minor effects, with little or no requirement for mitigation
	Moderate Impact	Potentially moderate effects subsequent to appropriate mitigation
Least Preferred	**Higher Impact**	Potentially major effects which may be difficult to mitigate

For the Landscape and Visual appraisal the following sub-categories have been added to the 'Moderate' category to help identify preference within this range, considering the subtleties of landscape and visual impacts.

Low-Moderate Impact
Moderate Impact
Moderate-High Impact

Using the terminology of SSEN Transmission's Routeing Guidance and as adapted specifically for this document, the following definitions have been used:

Effect - the direct or indirect physical consequence(s) of the proposed corridor option on receptors, under each of the various topic headings.

Level of Impact - the outcome of a comparative appraisal of the combination of effects within a specific topic along a specific corridor option after a consideration of the potential for mitigation, using professional judgement based on experience.

3.2.6 Identification of a Preferred Route

The overall objective throughout the appraisal of route options is to take full consideration of all environmental, engineering and cost factors to minimise any potential adverse impacts on the environment. Route options have been considered in combination to arrive at a Preferred Route for the Proposed Development.

3.2.7 Identification of a Proposed Route

Consultation is then undertaken seeking feedback on the Preferred Route. A Consultation Document (this document) is issued to statutory and non-statutory consultees, whilst the public will be consulted via a series of public events supported by the issue of a Consultation Brochure.

The consultation feedback and SSEN Transmission responses to the feedback will be reported in a Report on Consultation document which will be made publicly available. Its purpose is to record the stakeholder feedback received during the consultation process; explain how SSEN Transmission has responded, and how it has informed the selection of the Proposed Route. If the consultation does not feed into the project design this will also be incorporated into the Report on Consultation, with an explanation provided.

4. ROUTE OPTIONS

4.1 Identification of Route Options

Route options were identified as described in Section 3.2. This section provides a description of the route options, which have been divided into eleven sections and four nodes to provide OHL design flexibility and for ease of appraisal. The route options are presented on **Figure 4.1** and described below from west to east.

4.2 Description of Route Options

4.2.1 Section 1

Section 1 has three route options, all beginning in Fanellan to the east of Ruttle Wood.

Route 1A – Route 1A initially travels north east until it meets the River Beauly where it changes to an easterly direction, passing Balblair Wood and Croiche Wood. The route ends at the north of Croiche Wood, where it meets the River Beauly again.

Route 1B1 – Route 1B1 travels south east until it meets Culburnie Burn, where it takes a turn north east, travelling north of Kiltarlity until it ends at the A833, east of Dounie Burn.

Route 1B2 – Route 1B2 follows the same route as Route 1B2, until it reaches north of Kiltarlity, where it travels south east until it ends in the direction of Belladrum.

4.2.2 Node 1

Node 1 extends from the River Beauly in the north west to Belladrum Farm and Black Wood in the south and east, including the crossings of the A833 and A831.

4.2.3 Section 2

Section 2 has five route options.

Route 2A1 – Route 2A1 begins at Balchraggan and travels east, through Easter Moniack, and south of Kirkhill. Route 2A1 then passes through the Aird in a south easterly direction, and continues in this direction as it crosses the Caledonian Canal north of Dochgarroch, Scaniport and Essich. Route 2A1 ends at the B861 just south of Newton of Leys.

Route 2A2 – Route 2A2 follows the same route as Route 2A1, until it reaches Easter Monaick, where Route 2A2 turns to the south east, taking a more southern route across the Aird than Route 2A1. Route 2A2 then re-joins Route 2A1 at Dochgarroch and continues on the same route.

Route 2B – Route 2B begins east of Belladrum within Black Wood, and travels in a north easterly direction. After passing Moniack Burn through Reeling Glen, Route 2B joins Route 2A2 and continues on the same route.

Route 2C1 – Route 2C1 begins just south of Route 2B in Black Wood. It travels in a south easterly direction, past Torr Mor, until it reaches Allt Mor. Here the route changes direction to the north east, following a similar pathway to the Great Glen Way until it joins Routes 2A1, 2A2 and 2B at Dochgarroch and continues on the same route.

Route 2C2 – Route 2C2 initially follows the same route as Route 2C1 until it meets the Great Glen Way, where it takes a south easterly direction, crossing the Caledonian Canal at Kirkton. The route continues south east from here, crossing Darroch Wood and Drumashie Moor. As Route 2C2 passes to the north of Loch Ashie, it swings north east to end at the same point as the other Section 2 routes.

4.2.4 Section 3

Section 3 has three route options. All route options begin to the east of the B861, south of Newton of Leys, and end east of Castletown, to the south of Culloden Battlefield.

Route 3A – Route 3A travels in a north easterly direction across Drummossie Muir and through Daviot Wood. As the route reaches the B851 it travels east, past Castletown, until the end.

Route 3B – Route 3B travels in a north easterly direction across Drummossie Muir and through Daviot Wood, just south of the existing 275 kV OHL and Route 3A. Route 3B continues in this direction until the end. It runs parallel to the south of the existing 275 kV OHL.

Route 3C – Route 3C travels south east across Drummossie Muir, where it passes the B851 at Scatraig. The route then travels east, until it reaches Meallmore Lodge, where it changes direction to travel north until the end.

4.2.5 Section 4

Section 4 has four route options. All route options begin to the south of Culloden Battlefield, and end east of Ferness at New Inn Wood.

Route 4A1 – Route 4A1 travels in a north east direction, through Assich Forest and Foxmoor Wood, until it reaches the A939. Here, Route 4A1 travels south east until the end, passing Loch Belivat, crossing the River Findhorn, and going through Logie Wood. The southern edge of the route runs parallel to the existing 275 kV OHL for the majority of the route, except at the eastern end.

Route 4A2 – Route 4A2 follows the same route as Route 4A1 until it reaches Tomloan, where it travels in a south easterly direction, following a similar path to the existing 275 kV OHL. Route 4A2 crosses the River Findhorn at Dalnaheiglish Wood and continues south east until Achnabechan, where it turns north east to travel across New Inn Wood until the end.

Route 4B – Route 4B travels to the south of Routes 4A1 and 4A2, but still in a north easterly direction, past Saddle Hill. As Route 4B crosses Allt Dearg, it narrows considerably, and follows a path directly south of the existing 275 kV OHL. The route widens slightly once it passes the north of Clunas Reservoir, still following the route of the existing 275 kV OHL. Once Route 4B passes Muckle Burn, it narrows again and joins Route 4A2 until the end.

Route 4C – Route 4C follows the same route as Route 4B, until it passes Saddle Hill where Route 4C continues south of Route 4B and is much wider. Route 4C continues in an easterly direction, passing Clunas Reservoir, Loch of Boath Wood, Blackfold Wood, Dulsie Wood, and crossing the River Findhorn to the south of Route 4B. It then joins Route 4A2 and 4B at New Inn Wood until the end.

4.2.6 Section 5

Section 5 has two route options. Both route options begin to the east of New Inn Wood, and end at the Hill of Glaschyle.

Route 5A – Route 5A travels east across the south of Airdrie Plantations and Wood of Tilliglens, passing Dorback Burn, the A940, and Glenerney Wood. As Route 5A reaches the Dava Way, it crosses at the Divie Viaduct and travels in a north easterly direction until the end. It is located to the north of the existing 275 kV OHL and its southern edge runs parallel in the eastern half.

Route 5B – Route 5B travels south east, crossing the existing 275 kV OHL. It then widens to pass Culfearn and Tomdow, and Cairn Eney. As the route passes the Dava Way it travels north east, across the River Divie, then runs north until the end. It is located to the south of the existing 275 kV OHL and its northern edge runs parallel for most of the route.

4.2.7 Section 6

Section 6 has four route options. All route options begin north east of the Hill of Glaschyle.

Route 6A1 – Route 6A1 travels north around Romach Hill and to the south of Newtyle Forest. Route 6A1 then turns east, where it passes Romach Reservoir and Meikle Branchill. As the route passes to the south of the Hill of Mulundy, it travels north east through plantation woodland to the north of Dallas, then north of the Hill of the Wangie ending in Wangie Wood.

Route 6A2 – Route 6A2 follows the same route as Route 6A1 until it passes north of Dallas. Here, Route 6A2 runs east, passing to the south of the Hill of the Wangie, until it ends south of Kellas.

Route 6B – Route 6B travels in a north east direction, to the south of Romach Hill, following to the south of the exiting 275 kV OHL until Rhinagroup. Here Route 6B travels to the south of Dallas and the Plantation of Hillockhead, before continuing north east to join Route 6A2 south of Kellas.

Route 6C – Route 6C travels east, to the south of the Hill of Tomechole, until it reaches the River Lossie. From here it travels in a north easterly direction, passing to the south east of Meikle Hill, where it turns to travel north to join Route 6A2 and 6B south of Kellas.

4.2.8 Section 7

Section 7 has three route options. All route options end in an area stretching from Blackhills to Teindland.

Route 7A1 – Route 7A1 begins to the north of the Hill of the Wangie, travelling in a north easterly direction, passing Buinach Hill, Thomshill and Longmorn. From here, Route 7A1 travels east until the end.

Route 7A2 – Route 7A2 begins south of Kellas, and travels north east through Buinach Hill, where it joins Route 7A1.

Route 7B – Route 7B begins south of Kellas, travelling in a general north easterly direction across Glenlatterach Reservoir, Lochbuie, Hart Hill and Brown Muir, until it reaches the end.

4.2.9 Section 8

Section 8 has four route options. All route options begin to the west of Teindland Wood.

Route 8A1 – Route 8A1 takes a sharp north direction up to Cranloch. From here Route 8A1 travels in a general south easterly direction passing Orbliston and Westerton, crossing the River Spey, then passing Ordiequish Hill and Wood of Ordiequish, and crossing the A96, before ending at Aultmore.

Route 8A2 – Route 8A2 follows the same route as Route 8A1, until it passes the Wood of Ordequish, where Route 8A2 follows a more south easterly route, alongside the existing 275 kV OHL, until it reaches South Bogbain.

Route 8B1 – Route 8B1 travel south east, through Teindland Wood and Wood of Orton. As Route 8B1 passes the B9103, it travels east, crossing the River Spey, Hill of Cairnity, and Soundmoor, until it reaches Gow Moss where it joins Route 8A2.

Route 8B2 – Route 8B2 follows the same route as Route 8B1, until it passes Hill of Cairnity and Slackbuie, where it takes a south easterly direction passing Mulben. From here, it travels east following the A95 until it reaches the end around Muldearie Mains.

4.2.10 Node 2 (Blackhillock)

Node 2 lies to the north of Keith and encompasses the Preferred Site for the Blackhillock 2 Substation. The Node covers an area which extends from South Bogbain in the west, to Auchingove and the Burn of Aultmore to the east. It includes Newmill settlement, the Burn of Paithnick, a railway line and a number of road crossings.

4.2.11 Section 9

Section 9 has six routes however the 'A' and 'B' routes need to be combined to have route which is comparable to the 'C' routes; this approach was to provide further flexibility in route selection around Crombie Moss and Aberchirder.

Route 9A1 – Route 9A1 begins east of Auchinhove and travels east past Sillyearny Wood and Drumnagorrach. From here it travels north east, passing north of Crombie Moss, and ends at Finnyguard.

Route 9A2 – Route 9A2 initially follows the same route as 9A1 until Drumnagorrach, it then continues east, passing south of Crombie Moss and rejoins 9A1 at Finnyguard.

Route 9B1 – Route 9B1 begins at Finnyguard and travels east, to the north of Aberchirder and then south east, passing west of Bogton, and ending east of Milnbank.

Route 9B2 – Route 9B2 begins at Finnyguard and travels immediately south and then south east to pass south of Aberchirder, passing through Wettyfoot, to the north of Netherdale House and ending in the region of Bogs of Lathers.

Route 9C1 – Route 9C1 begins to the east of Keith in the vicinity of Drum and travels east through Balloch Wood and then south east through Drumhead before taking an eastly direction again past Millburn, Longmoor Wood, Conlandmill, Drumblair and ending at Gallows Hill.

Route 9C2 – Route 9C2 begins to the east of Keith in the vicinity of Drum and travels south east through Balloch Wood and Garrowmuir Wood, before joining Route 9C2 south of Drumhead and then following the same route until the end.

4.2.12 Node 3

Node 3 lies south of Turriff and covers an area largely used for agriculture. The B9024 lies to the north west of the Node, and the B992 lies to the south east of the Node. Other settlements within the Node include Brownhill, Ordley and Crofts of Inverthernie. The Burn of Darra runs to the north of the Node.

4.2.13 Section 10

Section 10 has three route options.

Route 10A – Route 10A begins west of the A947 at the Hill of Boggieshalloch and Wood of Darra. It travels east, passing Little Colp, Little Idoch, Newton of Greeness and Roadside, before ending at Northburnhill.

Route 10B – Route 10B begins at Hospital Wood, travelling east past the A947 and Hill of Lendrum, before ending at Mill of Muirtack.

Route 10C – Route 10C begins at Sillerton, travelling east past the A947 until it reaches Blachrie and joins Route 10B.

4.2.14 Node 4 (New Deer)

New Deer node lies to the west of New Deer and encompasses the existing New Deer Substation and the Preferred Site for New Deer 2 Substation, in an area predominately used for agriculture. The B9170 lies in the north of the Node, and settlements within the Node include Greens, Burnside, Slacks of Cairnbanno and Carinbanno House.

4.2.15 Section 11

Section 11 has six route options. All route options end west of Toddlehills.

Route 11A – Route 11A begins around West Brucehill and travels east until it reaches Mains of Culsh. From here, the route travels south east, passing north of New Deer and South of Maud. Route 11A continues south

east, passing Wind Hill, until it reaches the B9030. Here the route continues to the south of Stuartfield, in an easterly direction, passing the A952 and Millbreck, until it reaches the end.

Route 11B – Route 11B begins at Eastfield, and travels east following the existing 275 kV OHL until it passes south of Home Farm Kinmundy, where it travels north east to the end.

Route 11C1 – Route 11C1 begins around Middlemuir, and travels east until it reaches Auchmaliddie. From here Route 11C1 travels north east passing Nethermuir, Shantlerhill and the Formartine and Buchan Way at Annoichie. As Route 11C1 reaches Backhill of Fortrie, it travels east, passing Skelmuir Hill. As the route passes the A952, it travels north east until it meets Routes 11A and 11B.

Route 11C2 – Route 11C2 follows Route 11C1 until Laverockcairn, where it continues east, passing the A952 and plantation woodland east of Newton. At the Moss of Kinmundy, Route 11C2 travels north to join Routes 11A, 11B and 11C1.

Route 11C3 – Route 11C3 begins in the same place as Routes 11C1 and 11C2. It travels south east, passing Blackhill of Knaven and South Upper Barrack, until it meets the Formartine and Buchan Way and A948. After here Route 11C3 joins Route 11C1 until the end.

Route 11C4 – Route 11C4 follows Route 11C3 until it meets the Formartine and Buchan Way and A948, where it joins Route 11C2.

5. COMPARATIVE ANALYSIS OF POTENTIAL ROUTES

5.1 Introduction

The following is a summary of the key considerations of each route per section from an environmental, engineering and economic perspective, and provides a comparative appraisal of each route section in order to select an overall Preferred Route. The following figures accompany the text in this section and illustrate potential environmental baseline constraints identified under each topic.

- **Figure 5.1 Ecological, Key Woodland, Hydrology and Peat Constraints**
- **Figure 5.2 Cultural Heritage, Landscape and Land Use Constraints**
- **Figure 5.3 Agricultural Constraints**

5.2 Section 1

Table 5-1 below shows a comparative analysis of Route 1A, 1B1 and Route 1B2. The table splits each Route into the topics discussed in SSEN Transmission's 'Procedures for Routeing OHLs and Underground Cables of 132kV and above' guidance.

Table 5-1 – Comparative Analysis of Section 1 Routes

Topic	Route 1A	Route 1B1	Route 1B2
Natural Heritage	<u>Designations</u> The route is within 10 km of the Inner Moray Firth SPA/Ramsar and Beauly Firth SSSI, and there is suitability of habitat within the route boundary to support wintering geese and breeding osprey potentially associated with the SPA/Ramsar. Non-statutory designations and nature conservation sites within a 2 km radius include a Butterfly Conservation Scottish Priority Landscape (Great Glen and the Beauly Catchment) within the route boundary, and a Buglife Important Invertebrate Area (IIA) (East Inverness-shire) bordering the northern route boundary. <u>Protected Species</u> The mature woodland groups and tree lines located within Route 1A have the potential to support roosting bats. The habitats within Route 1A are considered suitable to support foraging badger. The majority of the Route 1A habitats are considered too exposed and unlikely to support wildcat. The mature coniferous woodland to the south of the quarry, east of the River Beauly, has the potential to support red squirrels. The River Beauly itself presents good foraging and commuting potential for otters but is considered sub-optimal for water voles. Areas of standing water are present within Route 1A, and these waterbodies may have the potential to support breeding amphibian populations. Salmonid fry and salmon parr and good nursery habitat were observed in the River Beauly during the Prior Ecology Studies[7], however sub-optimal conditions were observed for freshwater pearl mussel or lampreys. Suitable habitats to support reptiles within the Route are limited. <u>Habitats</u> As discussed under Protected Species, the route largely comprises woodland, agricultural land, and the River Beauly as well as unnamed watercourses and a water body. Habitat Map of Scotland (HABMOS)[8] data identifies the following Annex I habitats (of the Habitats Directive) within the route:	<u>Designations</u> Route 1B1 Natural Heritage Designation appraisal is the same as Route 1A. <u>Protected Species</u> Large areas of mature, mixed deciduous, woodland as well as mature tree lines are present within Route 1B1, which have the potential to support roosting bats and red squirrel. The habitats within Route 1B1 are also considered suitable to support foraging badger. The farmland and open grasslands within the route are considered too exposed and unlikely to support wildcat, and suitable habitat to support reptiles is limited. The River Beauly presents good foraging and commuting potential for otters but is considered sub-optimal for water voles. An area of standing water is present at the eastern end of the route, which has the potential to support breeding amphibians, such as common frog or common toad, however it is considered sub-optimal for great crested newt. Due to their connectivity to the River Beauly, the larger watercourses that cross Route 1B1, presented by Bruiach Burn and Dounie Burn, have the potential to be suitable spawning grounds for migratory salmonids. However, the route's watercourses are considered sub-optimal for freshwater pearl mussel or lampreys. <u>Habitats</u> As discussed in Protected Species, Route 1B1 largely comprises woodland, agricultural land and tributaries of the River Beauly including Culburnie Burn and Belladrum Burn. HABMOS data identifies the same Annex I habitats in Route 1B1 as Route 1A. Additionally, the NWSS identified lowland mixed deciduous woodland, native pinewood, upland birchwood and wet woodland within the route. Of these, eight parcels of woodland are listed in the AWI, all of which are LEPO woodlands, and not considered irreplaceable habitat. <u>BNG</u> This route presents the middle BU of the three Section 1 route options at 674.45 BU.	<u>Designations</u> Route 1B2 Natural Heritage Designation appraisal is the same as Route 1A and Route 1B2. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 1B2 are largely equal to those within Route 1B1, with the following exceptions: • The eastern end of Route 1B2 does not include the coniferous woodland described in Route 1B1. This lowers the habitat suitability for red squirrels within Route 1B2 to sub-optimal. • Private structures are present within the eastern end of Route 1B2, at the Lovat Shinty Club and Brockies Bar. These have the potential to support roosting bats, further increasing the habitat suitability for bat species within Route 1B2. <u>Habitats</u> The route largely comprises woodland, agricultural land and tributaries of the River Beauly including Culburnie Burn and Belladrum Burn. HABMOS data identifies the same Annex I habitats in Route 1B2 as Route 1A and Route 1B1. All of the AWI locations in this route are category 2b LEPO woodlands and not considered irreplaceable habitat. These remain high distinctiveness habitats and therefore ecologically valuable. <u>BNG</u> This route presents the highest total BU of the three Section 1 route options at 691.15 BU. <u>Ornithology</u> Route 1B2 appraisal for Ornithology is the same as Route 1A and Route 1B1.

[7] Includes a review of habitat suitability surveys targeting specific areas, completed for the Proposed Development. Evidence is also considered from past habitat suitability surveys, completed by SSEN Transmission for the assessment of related projects in the specific area (2017-2022).

[8] The Habitat Map of Scotland (HabMoS) is the national repository for habitat and land use data. The map adopts internationally recognised data and habitat classification standards.

Topic	Route 1A	Route 1B1	Route 1B2
	- H91A0 - Old sessile oak woods; - H91C0 - Caledonian forest; and - H91E0 - Alluvial forests. Additionally, the Native Woodland Survey of Scotland (NWSS) identified lowland mixed deciduous woodland, native pinewood, upland birchwood and wet woodland within the route. Of these, five parcels of woodland are listed in the Ancient Woodland Inventory (AWI). A single woodland, Croiche Wood, is category 2a ancient woodland of semi-natural origin, and considered irreplaceable habitat, whilst the remaining four are category 2b LEPO (long-established of plantation origin) woodlands and not considered irreplaceable habitat. <u>BNG</u> The category 2a ancient woodland of semi-natural origin is considered irreplaceable. This route has the lowest BU value of the Section 1 route options at 229.71 Biodiversity Units (BUs). <u>Ornithology</u> It is unlikely that Route 1A would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 1A crosses the River Beauly – Beauly Firth to Cannick waterbody. It is underlain by the Lower Old Red Sandstone moderately productive aquifer and locally important multi-layered aquifer. It is also underlain by the Muir of Ord (ID: 150619) and Beauly Coastal (ID: 150784) groundwater bodies. Route 1A is not located within any Drinking Water Protected Areas (DWPA), and according to The Highland Council Open Map Data[9], there are no Private Water Supplies within Route 1A.	<u>Ornithology</u> Route 1B1 appraisal for Ornithology is the same as Route 1A. <u>Hydrology, Geology and Hydrogeology</u> Route 1B1 crosses the Bruiach Burn and Belladrum Burn. It is underlain by the Lower Old Red Sandstone moderately productive aquifer and locally important multi-layered aquifer, as well as the Muir of Ord and Beauly Coastal groundwater bodies. Route 1B1 is not located within any Drinking Water Protected Areas (DWPA), and according to The Highland Council Open Map Data, there are no Private Water Supplies within Route 1B1.	<u>Hydrology, Geology and Hydrogeology</u> Route 1B2 appraisal for Hydrology, Geology and Hydrogeology is the same as Route 1B1.
Cultural Heritage	<u>Designations</u> There is a single Inventory Garden & Designed Landscape (GDL) within the route, Beaufort Castle, which has the potential for both direct and indirect impacts. There is a single Scheduled Monument, Kiltarlity Old Parish Church, located within the northern periphery of the route. There is the potential for both direct and indirect impacts, which could be reduced depending on the position of the alignment at the next stage of routeing. There is an additional Scheduled Monument Corff House, fort, approximately 330 m to the north of the eastern portion of the route. There is the potential for indirect impacts on this asset, however localised intervening topography, vegetation and infrastructure may reduce these impacts. Within the route, there are 12 undesignated assets. There is the potential for direct impacts, however these impacts can be reduced through siting any alignment to the southern portions of the route.	<u>Designations</u> Beaufort Castle GDL encroaches on the northern edge of the route. The potential exists for direct and indirect impacts on this asset. The Scheduled Monument Belladrum, chambered cairn, lies within the eastern portion of the route, which has the potential for both direct and indirect impacts. There is an additional Scheduled Monument, Culburnie, ring cairn and stone circle approximately 66 m to the south west of the western portion of the route. The potential exists for indirect impacts on this asset, however localised topography, vegetation and infrastructure may reduce these. Within the route, there are an additional 10 undesignated assets, which relate to Prehistoric funerary and ritual activity. There is the potential for direct impacts on these assets, however there is the potential to reduce these through the micro siting of any final alignment. <u>Assets</u>	<u>Designations</u> The Cultural Heritage Designations appraisal for Route 1B2 is very similar to Route 1B1. The only difference is there are 16 undesignated assets within the route, which relate to Prehistoric funerary and ritual activity. There is the potential for direct impacts on these assets. <u>Assets</u> There are three Listed Buildings in proximity to the route, where the potential for indirect impacts exists. In addition to the two Listed Buildings mentioned in proximity to Route 1B1, Route 1B2 has the potential for indirect impacts to a cluster of Category B listed buildings including Belladrum, The Temple, Category B, located approximately 60 m to the south of the eastern end of the route.

[9] The Highland Council Open Map Data. Available at: Private Water Supplies | Private Water Supplies | Highland Council Open Map Data (arcgis.com) (Accessed January 2023).

Topic	Route 1A	Route 1B1	Route 1B2
	Assets Within the route, there is a Category B Listed Building. There is potential for direct and indirect impacts on this asset. Beaufort Castle, Category A Listed Building, is approximately 960 m to the south of the central portion of the route. The asset sits within Beaufort Castle, where the key views are insular, connecting the GDL to Beaufort Castle. There is potential for indirect impacts on this asset.	There are two Listed Buildings in proximity where the potential for indirect impacts exists: • Beaufort Castle, Category A, is approximately 540 m to the north west of the eastern portion of the route. The asset sits within Beaufort Castle where the key views are insular, connecting the GDL to Beaufort Castle. There is potential for indirect impacts on this asset. • Home Farm Steading, Beaufort Castle, Category B, is located approximately 80 m to the north of the central portion of the route. The potential exists for indirect impacts on this asset.	
Landscape and Visual	Landscape Designations and Character Central Highlands Wild Land Area (WLA) lies approximately 6 km north west of the west end of Section 1. Although potentially visible from the WLA, the OHL would be in a distinctly different and developed landscape, in the context of existing OHLs, such that there would be no risk of effect on the wild land character. Route 1A runs north east, down moderately sloping fields and woodland, across the River Beauly, then across the floodplain inside the meander with large fields and belts of mature woodland. An OHL on this route would intrude in the local landscape and affect the characteristic mature woodland belts, but in the context of existing OHLs and New Beauly area substation. For all routes, it is very unlikely for any of the Routes to compromise any of the key attributes and qualities of any landscape designation. Visual An OHL on Route 1A risks being closely visible from a small number of residential properties around Black Bridge, inside the bend of the meanders, and from the footpaths through the area. However, it is unlikely to be substantially visible from the wider area, and would be seen in the context of existing OHLs and New Beauly area substation.	Landscape Designations and Character Central Highlands WLA lies approximately 6 km north west of the western end of Section 1. Although potentially visible from the WLA an OHL would be in a distinctly different and developed landscape, in the context of existing OHLs such that it would be no risk of effect on the wild land character. Route 1B1 runs south east down moderately sloping fields and woodland the across the flatlands of the Beauly valley north of Kiltarlity, across large fields and through belts of mature woodland. An OHL on this route would intrude in the local landscape and affect the characteristic mature woodland belts, extending the part of the Beauly valley affected by OHL infrastructure. For all routes, it is very unlikely for any of the Routes to compromise any of the key attributes and qualities of any landscape designation. Visual An OHL on Route 1B1 risks being closely visible from Kiltarlity, from scattered residential properties and from the footpaths through the area. However, due to the extent of mature woodland, it is unlikely to be substantially visible from the wider area. The wayleave through the forestry below Fanellan risks drawing the eye to the substation site from area around Kiltarlity and from Camault Muir.	Landscape Designations and Character Central Highlands WLA lies approximately 6 km north west of the west end of Section 1. Although potentially visible from the WLA an OHL would be in a distinctly different and developed landscape, in the context of existing OHLs such that it would be no risk of effect on the wild land character. Route 1B2 runs south east from the substation site down moderately sloping fields and woodland the across the flatlands of the Beauly valley north of Kiltarlity, across large fields and through belts of mature woodland. An OHL on this route would intrude in the local landscape and affect the characteristic mature woodland belts, extending the part of the Beauly valley affected by OHL infrastructure. For all routes, it is very unlikely for any of the Routes to compromise any of the key attributes and qualities of any landscape designation. Visual Route 1B2 would have the same visual effects as Route 1B1, and in addition risks being clearly visible from the Belladrum Tartan Heart Festival site.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.		
Land Use	Agriculture Route 1A begins in an area of Land Capability for Agriculture of Class 3.2, which is land capable of average production though high yields of barley, oats and grass can be obtained. As the route progresses east, the quality of land for agriculture increases to Class 2, which is capable of producing a wide range of crops. Forestry Within this route, there is 8.68 ha broadleaved woodland, 3.65 ha coniferous woodland, and 12.33 ha total woodland. Recreation There are core paths in the area that Route 1A passes through, particularly around Ruttle Wood and the River Beauly. There are no National Cycle Network (NCN) routes within the route.	Agriculture Route 1B1 begins in an area of Land Capable for Agriculture of Class 3.2. As the route progresses east, it enters an area of Class 3.1, which is considered prime agricultural land capable of producing consistently high yields of a narrow range of crops and/or moderate yields of a wider range. Forestry Within this route, there is 6.78 ha broadleaved woodland, 10.86 ha coniferous woodland and 17.64 ha total woodland. Recreation Route 1B1 passes through core paths around Ruttle Wood and Kiltarlity. There are no NCN routes within the route.	Agriculture Route 1B2 follows an almost identical route to 1B1 and there is no difference in agricultural constraints. Forestry Within this route there is 7.15 ha broadleaved woodland, 7.87 ha coniferous woodland and 15.02 ha total woodland. Recreation Route 1B2 passes through a core paths, particularly around Ruttle Wood and Kiltarlity. There are no NCN routes within the route. The area that Route 1B2 passes through may be used in places for commercial highland sports such as fishing, stalking and shooting.

Topic	Route 1A	Route 1B1	Route 1B2
	The area that Route 1A passes through may be used in places for commercial highland sports such as fishing, stalking and shooting. The sections of the River Beauly that Route 1A cross are known to be used for recreational salmon and trout fishing.	The area that Route 1B1 passes through may be used in places for commercial highland sports such as fishing, stalking and shooting. The Belladrum Tartan Heart Festival takes place in the area. Direct impacts to the festival site could be avoided through design at alignment stage.	Route 1B2 covers the entirety of the Belladrum Tartan Heart Festival site and direct impacts would be unavoidable.
Planning	There are proposals known to the planning system in the route, most of which are not expected to negatively interact with the routes. A permitted application for visitor accommodation with associated landscaping, access, footpaths, parking and associated amenity buildings can be found directly east of Route 1A.	There are proposals known to the planning system in both Route 1B1 and Route 1B2, most of which are not expected to negatively interact with the routes.	
Engineering	Infrastructure Crossings Route 1A crosses the River Beauly twice. The river itself is not a crossing challenge from an engineering perspective, however due to its use for recreational activities, restrictions would been to be applied in the area during construction, or perhaps scaffolding across the river would be required. Route 1A also crosses the A862, two minor roads, and one restricted local access road. Environmental Design All routes in Section 1 traverse through the same range of elevations and all remain below 140 m elevation, which is not considered challenging. All routes within Section 1 fall within 10 km of Beauly Firth coastal region. Routes that fall within 10 km of the coast may be classified as coastal regions and require “very heavy” pollution insulation levels to offset the salt deposition that builds up over time. This results in slightly more expensive insulators but has minimal impact overall. All routes within Section 1 are low risk for Unexploded Ordnance (UXO), contain no landfill or Control of Major Accident Hazard (COMAH) sites. The risk of flooding is minimal. Ground Conditions Route 1A terrain is not considered challenging, with a maximum slope of 13 degrees. Route 1A has small areas of peatland within, mostly around the River Beauly. Construction/Maintenance Route 1A is not considered challenging from an access perspective. At this stage in the routeing process an indicative alignment is used to determine the likely number of angle changes. This is likely to change when it comes to developing the alignment, however allows for the options to be compared. All options are relatively similar in this short section with 3 to 5 angle changes across roughly 4.5 km. Proximity One residential building passes within 170 m of the route. Four non-residential buildings lie within 170 m of the route. There are no known wind farms, communication masts, urban areas or pipelines within Route 1A.	Infrastructure Crossings Route 1B1 crosses the A833, three minor roads, and a restricted local access road. Environmental Design All routes in Section 1 traverse through the same range of elevations and all remain below 140 m elevation, which is not considered challenging. Route 1B1 falls within 10 km of Beauly Firth coastal region. All routes within Section 1 are low risk for Unexploded Ordnance (UXO), contain no landfill or Control of Major Accident Hazard (COMAH) sites. The risk of flooding is minimal, although there is potential high flood risk associated with several small burns across the route. Ground Conditions Route 1B1 terrain is not considered challenging, with a maximum slope of 14 degrees. Construction/Maintenance All options are relatively similar in this short section with 3 to 5 angle changes across roughly 4.5 km. Proximity No residential buildings lie within 170 m of the route. Three non-residential buildings lie within 170 m of the route. There are no known wind farms, communication masts or pipelines within Route 1A. Route 1B1 passes in close proximity to Culburnie, Kiltarlity, and Belladrum.	Infrastructure Crossings Route 1B1 crosses the A833, three minor roads, and a restricted local access road. Environmental Design All routes in Section 1 traverse through the same range of elevations and all remain below 140 m elevation, which is not considered challenging. Route 1B2 falls within 10 km of Beauly Firth coastal region. All routes within Section 1 are low risk for Unexploded Ordnance (UXO), contain no landfill or Control of Major Accident Hazard (COMAH) sites. The risk of flooding is minimal, although there is potential high flood risk associated with several small burns across the route. Ground Conditions Route 1B2 terrain is not considered challenging, with a maximum slope of 14 degrees. Construction/Maintenance All options are relatively similar in this short section with 3 to 5 angle changes across roughly 4.5 km. Proximity No residential buildings lie within 170 m of the route. Six non-residential buildings lie within 170 m of the route. There are no known wind farms, communication masts or pipelines within Route 1A. Route 1B2 passes in close proximity to Culburnie and Kiltarlity, and runs through the Belladrum Tartan Heart Festival site.

Topic	Route 1A	Route 1B1	Route 1B2
Economic	Route 1A has the highest capital cost in Section 1, predominantly due to the need to cable dip an existing 132 kV OHL to facilitate crossing, which is not required in the alternative options. Elements also driving this increased cost is that it is a slightly longer route, increasing construction elements such as tower and conductor costs.	Route 1B1 is the lowest cost option.	Route 1B2 is very similar to Route 1B1 from a construction cost perspective, having equal lengths and the same access road and OHL crossing requirements. Route 1B2 has a slightly higher cost due to a higher ratio of tension to suspension towers within this total. This reflects the additional changes in direction of the route.

Table 5-2 below shows the RAG Ratings for this section. Within Section 1, Route 1A is marginally the Preferred Route from an environmental perspective, due to constraints with all options. Route 1A has the least impact on landscape character and visual impacts due to the presence of existing OHL infrastructure within the route, and fewer residential properties, although there are likely direct impacts on Beaufort Castle Garden and Designed Landscape (GDL), and irreplaceable Category 2a ancient woodland of semi-natural origin at Croiche Wood. Route 1B2 was considered preferable from a Natural Heritage and Cultural Heritage perspective, however proximity to settlements and likely direct impacts on the The Belladrum Tartan Heart Festival site were considered too great for it to be a Preferred Route. Route 1B1 and 1B2 are also closer to residential properties and settlements and therefore would impact a greater number of people than 1A, and there may be indirect impacts on Beaufort Castle GDL and the site of The Belladrum Tartan Heart Festival.

Based on the engineering factors considered, the Preferred Route within Section 1 is Route 1A. Although Route 1A requires two crossings of the River Beauly, this is considered preferable as both options 1B1 and 1B2 pass in close proximity to larger urban developments such as Culburnie, Kiltarlity and Belladrum. Route 1B2 would also have to cross through the Belladrum Tartan Heart Festival site which, although could be managed from a construction and operational safety perspective, would potentially have significant impacts on the ongoing operation of the festival. Route 1A has several dispersed dwellings, however it is possible to identify an alignment through the area that adheres to the minimum 100 m exclusion from residential dwellings and also the proposed 170 m operational noise buffer. All other engineering factors are considered to be broadly similar between the routes with access, terrain and flooding posing no major concerns.

From a Capital cost perspective, Route 1B1 is preferred but Route 1B2 is also favourable. Route 1A is the least favoured option with an 'Amber' RAG scoring. From an Operational cost perspective, Route 1B1 and 1B2 are preferable. Route 1A is the least favoured option in terms of operational costs, with an 'Amber' RAG scoring. Overall, Route 1B1 is preferred from an economic perspective.

On balance Route 1A is the Preferred Route in Section 1, due to having the least impact on landscape character and visual impacts, and reduced proximity to settlements, residential receptors and The Belladrum Tartan Heart Festival site.

Table 5-2 – RAG Ratings for Section 1

	Parameter	Sub-Parameter	Section 1 Route Options		
			Option 1A	Option 1B1	Option 1B2
Environment	Natural Heritage	Designations	M	M	M
		Protected Species	M	M	M
		Habitats	H	H	H
		Ornithology	L	L	L
		Geology. Hydrology, Hydrogeology	M	M	M
	Cultural Heritage	Designations	H	M	L
		Cultural Heritage Assets	M	L	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating		
	Landscape and Visual	Designations	L	L	L
		Landscape Character	L/M	M	M
		Visual	L/M	M	M
	Land Use	Agriculture	H	H	H
		Forestry/ Woodland	H	H	H
		Recreation	M	M	H
	Planning	Proposals	H	M	M
Engineering	Infrastructure Crossings	Major Crossings	M	L	L
		Road Crossings	L	L	L
	Topography	Elevation	L	L	L
		Atmospheric pollution	M	M	M
		Contaminated land	L	L	L
		Flooding	L	L	L
	Ground Conditions	Terrain	L	L	L

	Parameter	Sub-Parameter	Section 1 Route Options		
			Option 1A	Option 1B1	Option 1B2
		Peatland	L	L	L
	Construction / Maintenance	Access	L	L	L
		Angle Towers	M	M	M
	Proximity	Clearance distance to buildings	M	L	L
		Wind farms	L	L	L
		Communication masts	L	L	L
		Urban environments	L	M	M
		Metallic pipelines	L	L	L
Cost	Capital		M	L	L
	Operational		M	L	L

5.3 Section 2

Table 5-3 shows a comparative analysis of Routes 2A1, 2A2, 2B, 2C1 and 2C2.

Table 5-3 – Comparative Analysis of Section 2 Routes

Topic	Route 2A1	Route 2A2	Route 2B	Route 2C1	Route 2C2
Natural Heritage	Designations There is one statutory designated site within the route, which is the Torvean Geological Conservation Review (GCR) site. Designated sites within 10 km of the route include Moniack Gorge SSSI/SAC, Beauly Firth SSSI, Inner Moray Firth SPA/Ramsar, Moray Firth SPA/SAC, Loch Ashie SSSI/ SPA, Loch Battan SSSI, Longman and Castle Stuart Bays SSSI, Monadh Mor SAC, Lower River Conon SSSI, Conon Islands SAC and Loch Ruthven SAC/SPA/SSSI/Ramsar. The route is in proximity to the Inner Moray Firth SPA/Ramsar and Beauly Firth SSSI and has suitable habitat within the route boundary to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius include a Butterfly Conservation Scottish Priority Landscape, a Buglife B-Line, and a Buglife Important Invertebrate Area (IIA) (East Inverness-shire), all within the route boundary. Protected Species The habitats and structures within Route 2A1 are considered suitable to support roosting, commuting and foraging bats; foraging badgers and for sett creation; wildcats, pine marten, and red squirrel.	Designations There is one statutory designated site within the route, which is the Torvean GCR. Designated sites within 10 km of the route include Moniack Gorge SSSI/SAC, Beauly Firth SSSI, Inner Moray Firth SPA/Ramsar, Moray Firth SPA/SAC, Loch Ashie SSSI/ SPA, Loch Battan SSSI, Longman and Castle Stuart Bays SSSI, Monadh Mor SAC, Lower River Conon SSSI, Conon Islands SAC and Loch Ruthven SAC/SPA/SSSI/Ramsar. The route is in proximity to the Inner Moray Firth SPA/Ramsar and Beauly Firth SSSI and has suitable habitat within the route boundary to support wintering geese and breeding osprey potentially associated with these sites. The route is also in proximity to Moniack Gorge SSSI/SAC which can be avoided. Non-statutory designations and nature conservation sites within a 2 km radius are the same for Route 2A2 as Route 2A1. However, Route 2A2 also has one Important Plant Area (IPA) (Moniack Gorge) within the route boundary. Protected Species The habitats and their suitability to support protected species within Route 2A2 are largely equal to those	Designations There are statutory designated sites within the route, including the Torvean GCR and Moniack Gorge SSSI/SAC, although it has been assumed that the OHL route will pass over the Moniack Gorge SSSI without the need for towers being within the SSSI/SAC or vegetation clearance within or adjacent to the site. Designated sites within 10 km of the route include Beauly Firth SSSI, Inner Moray Firth SPA/Ramsar, Moray Firth SPA/SAC, Loch Ashie SSSI/ SPA, Loch Battan SSSI, Longman and Castle Stuart Bays SSSI, Monadh Mor SAC/SSSI, Loch Ruthven SAC/SPA/SSSI/Ramsar, North Inverness Lochs, and Balnagrantach SSSI. The route is in proximity to the Inner Moray Firth SPA/Ramsar and Beauly Firth SSSI and has suitable habitat within the route boundary to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius are the same for Route 2B as Route 2A2. Protected Species The habitats and their suitability to support protected species within Route 2B are largely	Designations There are statutory designated sites within the route, including the Torvean GCR, Moniack Gorge SSSI, and Loch Battan SSSI, although it has been assumed that the OHL route will pass over the Moniack Gorge SSSI without the need for towers being within the SSSI/SAC or vegetation clearance within or adjacent to the site. Designated sites within 10 km of the route include Moniack Gorge SAC, Loch Ashie SPA/SSSI, Inner Moray Firth SPA/Ramsar, Moray Firth SAC/SPA, Beauly Firth SSSI, Longman and Castle Stuart Bays SSSI, Balnagrantach SSSI, North Inverness Lochs SPA, Urquhart Bay Wood SAC/SSSI and Loch Ruthven SAC/SPA/SSSI/Ramsar. The route is in proximity to the Inner Moray Firth SPA/Ramsar and Beauly Firth SSSI and has suitable habitat within the route boundary to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius are the same for Route 2C1, 2B and 2A2. Protected Species The habitats and their suitability to support protected species within Route 2C1 are largely	Designations There are statutory designated sites within the route, including Loch Battan SSSI, and Moniack Gorge SSSI, although it has been assumed that the OHL route will pass over the Moniack Gorge SSSI without the need for towers being within the SSSI/SAC or vegetation clearance within or adjacent to the site. Designated sites within 10 km of the route include Loch Ashie SPA/SSSI, Moniack Gorge SAC, Beauly Firth SSSI, Inner Moray Firth SPA/Ramsar, Moray Firth SAC/SPA, Balnagrantach SSSI, Moray Firth SPA, Loch Ruthven SAC/SPA/SSSI/Ramsar, North Inverness Lochs SPA, and Urquhart Bay Wood SSSI/SAC. The route is in proximity to the Inner Moray Firth SPA/Ramsar and Beauly Firth SSSI and has suitable habitat within the route boundary to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius are the same for Route 2C2, 2C1, 2B and 2A2. Protected Species The habitats and their suitability to support protected species within the western half of Route 2C2 are equal to those within Route 2C1, in

Topic	Route 2A1	Route 2A2	Route 2B	Route 2C1	Route 2C2
	Areas of standing water and slow-flowing field drains within Route 2A1 have the potential to support breeding amphibian populations, and potentially great crested newts. Large areas of scrub and tussocky grassland present in the east, from the Big Burn east to the end of the route, have the potential to support reptiles. Aquatic habitats (dependent on type, substrate and obstacles), have the potential to support commuting and foraging otters, water voles, migratory salmonids, and lamprey species. They are considered to be sub-optimal for freshwater pearl mussels. The varied habitats within Route 2A1 also have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. <u>Habitats</u> The route largely comprises woodland, peatland habitats, agricultural land and the Caledonian Canal and River Ness, as well as several smaller watercourses and water bodies. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; and • H91E0 - Alluvial forests. The NWSS identified lowland mixed deciduous woodland, native pinewood, upland oakwood, upland birchwood and wet woodland within Route 2A1. Of the woodland within the route, eighteen areas are listed in the AWI. Two of these are category 1a ancient woodland of semi-natural origin and two are category 2a ancient woodland of semi-natural origin and therefore considered irreplaceable habitat. The remaining woodlands are category 2b LEPO woodlands which is not considered irreplaceable habitat. <u>BNG</u> Irreplaceable ancient woodland habitat represents 0.53 % of the total route. Whilst the Category 2b LEPO woodlands in the route are not considered	within Route 2A1, with the following exceptions where the route differs south of Drumchardine: • A larger distribution of scrub and tussocky grassland is present within the vicinity of Loch Dionach, further increasing Route 2A2's suitability for reptile species. • A section of mature broadleaf woodland is present on either side of the Moniack Burn, further increasing the habitat's roosting suitability for bat species within Route 2A2. <u>Habitats</u> The habitats appraisal for Route 2A2 is the same as Route 2A1. <u>BNG</u> Irreplaceable ancient woodland habitat represents 0.5% of the total route. Whilst the Category 2b LEPO woodlands in the route are not considered irreplaceable, they are considered high distinctiveness habitats. The total BU for this route is 8465.45 BU, the second highest of the five options. <u>Ornithology</u> The ornithology appraisal for Route 2A2 is the same as Route 2A1. <u>Hydrology, Geology and Hydrogeology</u> The hydrology, geology and hydrogeology appraisal for Route 2A2 is largely the same as Route 2A1, however Route 2A2 also crosses Loch Dionach.	equal to those within Route 2A2, with the following exceptions where Route 2B differs west of the Moniack Burn: • A larger section of mature broadleaf woodland is present on either side of the Moniack Burn. • Greater areas of mixed coniferous plantation are also present in the western extent of Route 2B, at the Black Wood. These woodlands further increase the route's foraging and roosting suitability for bat species. <u>Habitats</u> The route largely comprises the same habitats as Route 2A1. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; • H91E0 - Alluvial forests; and • H3130 - Oligotrophic to mesotrophic lochs. The NWSS identified the same woodland types for Route 2B as Route 2A1. Of the woodland within the route, 14 areas are listed in the AWI. Two of these are category 1a ancient woodland of semi-natural origin and two are category 2a ancient woodland of semi-natural origin. The remaining woodlands are category 2b LEPO woodlands. <u>BNG</u> Irreplaceable ancient woodland habitat represents 0.48 % of the total route. Whilst the Category 2b LEPO woodlands in the route are not considered irreplaceable, they are considered high distinctiveness habitats. The total BU for this route is 10267.67 BU, the highest of the five options by over 1500 BU. <u>Ornithology</u> The ornithology appraisal for Route 2B is the same as Route 2A1. <u>Hydrology, Geology and Hydrogeology</u>	equal to those within Route 2A1, with the following exceptions where the Route differs west of Dochgarroch: • A larger distribution of scrub and tussocky grassland is present, east of the Moniack Burn, further increasing Route 2C1's suitability for reptile species. • A section of mature broadleaf woodland is present on either side of the southern end Moniack Burn, further increasing the habitat's roosting suitability for bat species within Route 2C1. <u>Habitats</u> Route 2C1 largely comprises the same habitats as Route 2B. HABMOS data identifies the same Annex I habitats within the route as Route 2B. The NWSS identified the same woodland types for Route 2C1 as Route 2B. Of the woodland within the route, 16 areas are listed in the AWI. Two of these are category 1a ancient woodland of semi-natural origin and three are category 2a ancient woodland of semi-natural origin. The remaining woodlands are category 2b LEPO woodlands. The NWSS also identified dwarf shrub heath in the west of Route 2C1. <u>BNG</u> Irreplaceable ancient woodland habitat represents 0.44 % of the total route. Whilst the Category 2b LEPO woodlands in the route are not considered irreplaceable, they are considered high distinctiveness habitats. Irreplaceable Class 1 peat is present along the Great Glen Way and represents 2.18 % of the route. The total BU for this route is 6161.90 BU, the third lowest of the five options <u>Ornithology</u> The ornithology appraisal for Route 2C1 is the same as Route 2A1. <u>Hydrology, Geology and Hydrogeology</u>	the areas where the boundaries overlap. The suitability of the habitats to the east of 2C1 differ in the following ways: • A larger distribution of scrub and tussocky grassland is present in the eastern half of Route 2C2, further increasing the route's suitability for reptile species beyond those presented in 2C1. <u>Habitats</u> Route 2C2 largely comprises the same habitats as Route 2C1. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; • H91E0 - Alluvial forests; and • H9180 - Tilio-Acerion forests The NWSS identified the same woodland types for Route 2C2 as Route 2C1. Of the woodland within the route, 18 areas are listed in the AWI. Two of these are category 1a ancient woodland of semi-natural origin and three are category 2a ancient woodland of semi-natural origin. The remaining woodlands are category 2b LEPO woodlands. The NWSS also identified fen, marsh and swamp in the west of the route. <u>BNG</u> Irreplaceable ancient woodland habitat represents 0.91 % of the total route. Whilst the Category 2b LEPO woodlands in the route are not considered irreplaceable, they are considered high distinctiveness habitats. Irreplaceable Class 1 peat is present along the Great Glen Way and represents 7.72 % of the route. The total BU for this route is 4484.45 BU, the lowest of the five options. <u>Ornithology</u> The ornithology appraisal for Route 2C2 is the same as Route 2A1. <u>Hydrology, Geology and Hydrogeology</u>

Topic	Route 2A1	Route 2A2	Route 2B	Route 2C1	Route 2C2
	irreplaceable, they are considered high distinctiveness habitats. The total BU for this route is 6087.07 BU, the second lowest of the five options. <u>Ornithology</u> It is unlikely that Route 2A1 would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 2A1 crosses a number of watercourses including Moniack Burn, River Ness, Caledonian Canal, Big Burn, and Alt na Skiah. It is underlain by the Glenfinnan Group low productivity aquifer, and Middle Old Red Sandstone moderately productive aquifer. There are a number of groundwater bodies within Route 2A1, including Beauly Coastal (ID: 150784), Northern Highlands (ID: 150701), Inverness and Ardersier Coastal (ID: 150807) and Inverness (ID: 150670). There are no DWPA within Route 2A1, however there are PWS according to The Highland Council Open Map Data.		Route 2B crosses a number of watercourses including Moniack Burn, River Ness, Caledonian Canal, Big Burn, and Alt na Skiah, as well as Loch Dionach. Route 2B is underlain by the Glenfinnan Group low productivity aquifer, and Middle Old Red Sandstone moderately productive aquifer. There are a number of groundwater bodies within Route 2B, including the Muir of Ord (ID: 150619), Beauly Coastal (ID: 150784), Northern Highlands (ID: 150701), Inverness and Ardersier Coastal (ID: 150807) and Inverness (ID: 150670). There are no DWPA within Route 2B, however there are PWS according to The Highland Council Open Map Data.	The hydrology, geology and hydrogeology appraisal for Route 2C1 is largely the same as Route 2A1, however Route 2C1 is also underlain by the Muir of Ord (ID: 150629) groundwater body.	The hydrology, geology and hydrogeology appraisal for Route 2C2 is largely the same as Route 2C1. However, a small area of the south of Route 2C2 is located within the catchment of Loch Ness, which is designated as a SEPA DWPA for surface water. Furthermore, Route 2C2 is located within Loch Ness abstraction SW DWPA which supplies Invermoriston Water Treatment Works (WTW) and Loch Ashie abstraction SW DWPA, which supplies Inverness Loch Ashie WTW. According to The Highland Council Open Map Data there are no PWS within Route 2C2.
Cultural Heritage	<u>Designations</u> There are no World Heritage Sites, Garden & Designed Landscapes or Inventory Battlefields within the route. There are four Scheduled Monuments within the route; Torbreck, stone circle (SM3098) located at the northern edge of the route in the east, and Borlum, ring ditch (SM5142) located on the southern edge of the route in the east. There is the potential for indirect impacts on these assets. The Caledonian Canal bisects the route within the eastern portion, with the Dochgarroch Lock (SM5417) and the Muirtown Lock (SM6499). Direct impacts are unlikely due to the distance between towers, however this may be constrained due to the presence of the River Ness. There are an additional two Scheduled Monuments within proximity to the east of the route, where there is the potential for indirect impacts. Achvraid, hut circles (SM11786) and Garn Glas,	<u>Designations</u> The Cultural Heritage Designations appraisal for Route 2A1 also applies for Route 2A2. <u>Assets</u> The Cultural Heritage Assets appraisal for Route 2A1 also applies to Route 2A2, however there are 65 undesignated assets dispersed across the Route 2A2.	<u>Designations</u> The Cultural Heritage Designations appraisal for Route 2B is largely similar to the ‘A’ route options. Similarly to Route 2A1 and 2A2, the same four Scheduled Monuments lie within the route. Within close proximity to Route 2B there are five Scheduled Monuments that have the potential for indirect impacts. In the western end, these include Dun Mor, fort (SM2423), Phioneas Hill, enclosure (SM4729) and Castle Spynie, broch (SM4653). In the eastern end of the route, these include Achvraid, hut circles (SM11786) and Garn Glas, chambered cairn (SM2392), both approximately 400 m from the southern edge of the route. Dochfour GDL is approximately 20 m south of the route where it crosses the River Ness, and there is potential for indirect impacts. <u>Assets</u>	<u>Designations</u> The Cultural Heritage Designations appraisal for the ‘A’ and ‘B’ route options is largely similar to Route 2C1. However, in close proximity to Route 2C1 there is only one Scheduled Monument, Auchvaich, chambered cairn, which is approximately 370 m from the western edge of the route. There is the potential for indirect impacts. <u>Assets</u> The Cultural Heritage Assets appraisal for the ‘A’ and ‘B’ route options also applies to Route 2C1, however there are 56 undesignated assets dispersed across Route 2C1.	<u>Designations</u> There are no World Heritage Sites, Garden & Designed Landscapes or Inventory Battlefields within the route. There is a single Scheduled Monument within the route, Caledonian Canal, Loch Ness - Dochgarroch Lock (SM6498). This truncates the central portion of the route. There are a number of Scheduled Monuments in proximity to the route with Auchvaich, chambered cairn (SM4744), approximately 370 m from the edge of the western extent of the route. In addition, Achvraid, hut circles (SM11786), Garn Glas, chambered cairn (SM2392) are located approximately 800 m to the north and Achvraid, hut circles (SM11561) are located approximately 500 m to the northern edge at the western extent of the route. There is the potential for indirect impacts on these assets.

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	chambered cairn (SM2392) both approximately 400 m from the southern edge of the route. There is a GDL, Dochfour (GDL00137) approximately 20 m to the south of the route where it crosses the River Ness. There is the potential for indirect impacts on this asset. Within the route, there are 66 undesignated assets dispersed across the length, with concentrations in the east. There is the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There is a Category B Listed Building within the route, Dochgarroch House (LB8067), located where the route crosses Dochgarroch Burn. There is the potential for direct impacts. There are an additional three Listed Buildings (1 Category B, 2 Category C) located on either side of the route at Dochgarroch. There is the potential for indirect impacts on these assets. Dochfour GDL contains a number of Category B and C Listed Buildings as well as a Category A Listed Building. These assets have key views to the north. The potential exists for indirect impacts on these assets.		The Cultural Heritage Assets appraisal for Route 2A1 also applies to Route 2B, however there are 63 undesignated assets dispersed across Route 2B.		There is a GDL, Dochfour (GDL00137) approximately 10 m to the south of the route where it crosses the River Ness. There is the potential for indirect impacts on this asset, with key views focused along the loch from the A82. There is an additional GDL, Aldourie Castle (GDL00011), located approximately 500 m to the south of the route. Key views extend across Loch Ness to the north west of the assets. There is the potential for indirect impacts on this asset. There are 40 undesignated assets dispersed across the route, with the potential for indirect impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There are a number of Listed Buildings within the Docfour and Aldourie Castle GDLs, which are on either side of the route at Lochend. Both contain Category A Listed Buildings, which would be indirectly impacted by an interruption of key views along the Loch.
Landscape and Visual	<u>Landscape Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of any of the routes in Section 2. Loch Ness and Duntelchaig Special Landscape Area (SLA) lies approximately 3 km south west of the route. Pylons are listed as an occasional feature in the Key Landscape and Visual Characteristics of the SLA, particularly to the north, where settlements and activity are more common. Distance, landform and intervening vegetation would limit the influence of Route 2A1 on the SLA. Route 2A1 starts at the north end of Node 1, running diagonally across the broad shallow, intensively farmed valley of the Moniack Burn, it then climbs the mainly afforested gentle shoulder of Cnoc na Moine, across the valley of the Bunchrew Burn and drops into the Great Glen at a slight notch in the ridgeline	<u>Landscape Designations and Character</u> Loch Ness and Duntelchaig SLA lies approximately 3 km south west of the route. Distance, landform and intervening vegetation would limit the influence of Route 2A2 on the SLA. Route 2A2 starts at the north end of Node 1 and runs across the broad shallow, intensively farmed valley of the Moniack Burn to cross the gorge of the Moniack Burn above Easter Moniack then climbs sharply the steeper north west flank of An Leacainn against the grain of the landscape, over higher ground to the bealach at the top of the Bunchrew Burn, joining 2A1 where it drops into the Great Glen at a slight notch in the ridgeline above Dochgarroch. It then follows 2A1 broadening out to cross the Great Glen north of Dochgarroch and across the rolling farmland to the moorland plateau west of Knocknagael substation.	<u>Landscape Designations and Character</u> Loch Ness and Duntelchaig SLA lies approximately 3 km south west of the route. Distance, landform and intervening vegetation would limit the influence of Route 2B on the SLA. Route 2B starts at the south end of Node 1 and runs east along the steep indented forested sidelong ground that forms the southern edge of the valley of the Moniack Burn before dropping down to cross the gorge of the Moniack Burn, meeting Route 2A2 where it starts to climb sharply the steeper north west flank of An Leacainn against the grain of the landscape, over higher ground to the bealach at the top of the Bunchrew Burn, and on to drop into the Great Glen at a slight notch in the ridgeline above Dochgarroch.	<u>Landscape Designations and Character</u> Loch Ness and Duntelchaig SLA lies approximately 1.5 km south of the route. Distance, landform and intervening vegetation would limit the influence of Route 2C1 on the SLA. Route 2C1 starts at the south end of Node 1 and runs south east across a gently rising area of forestry, farmland and woodland to the northern edge of Tòrr Mòr and down to cross the Allt Mòr at Ballone, in a locally enclosed area of the rocky moorland plateau that has a remote and relatively wild character. It then follows the attractive upper valley of the Allt Ourie / Dochfour Burn east north east via Blackfold to join the 'A' and 'B' route options, where it drops into the Great Glen at a slight notch in the ridgeline above Dochgarroch. It then follows the 'A' and 'B' options, broadening out to cross the Great Glen north of Dochgarroch	<u>Landscape Designations and Character</u> Route 2C2 crosses the floor of the Great Glen less than one kilometre north of the Loch Ness and Duntelchaig SLA, and touches the northern edge of the designation on Drumashie Moor on the eastern flanks of the Great Glen. Although the occasional pylons are listed as one of the Key Landscape and Visual Characteristics of the SLA, an OHL across the loch this close to the SLA could compromise some its key characteristics, such as the steep sided slopes of the glen, or the few quiet bays and more accessible areas of shore and forest. Route 2C2 starts at the south end of Node 1 and runs south east across a gently rising area of forestry, farmland and woodland to the northern edge of Tòrr Mòr, and down to cross the Allt Mòr at Ballone in a locally enclosed area of the rocky

Topic	Route 2A1	Route 2A2	Route 2B	Route 2C1	Route 2C2
	above Dochgarroch. It broadens out to cross the Great Glen north of Dochgarroch and across the rolling farmland to the moorland plateau west of Knocknagael substation. From Node 1 to Craig Leach (above the Great Glen) this route sits relatively comfortably in the landscape and conforms to Holford Rules 4 & 5, following the broad grain of the landscape. An OHL in the north of the route, lower on the hill side would likely fit better. South of Craig Leach there is a slight crease in the hillside which would provide a degree of visual logic to the location of an OHL, whilst west of the Great Glen the gently rising landscape is quite homogenous. <u>Visual</u> Route 2A1 will be visible in the foreground from sections of the A862 and pass close to Easter Moniack and Newtonhill as well as some scattered residential properties. It is likely to be distantly visible from quite a wide area as it climbs over the shoulder of Cnoc na Moine, but in a location that is comparatively unobtrusive. The crossing of the Great Glen will be visible from the A82, but mature trees should reduce the extent of this visibility. Similarly, the line will be visible by tourists on the Caledonian Canal and users of the Dochgarroch Moorings, and from cycle tourists on the NCN Route 78, as well as the B862 and the settlements along it. Careful consideration will be required at alignment stage to avoid the crossing of the glen being intrusive. Further east there are occasional scattered residential receptors.	From Node 1 to Craig Leach (above the Great Glen) this route works against the grain of the landscape. As for Route 2A1, South of Craig Leach there is a slight crease in the hillside which would provide a degree of visual logic to the location of an OHL, whilst west of the Great Glen the gently rising landscape is quite homogenous. <u>Visual</u> Route 2A2 would be visible in the foreground from a short section of the A862 and pass close to Easter Moniack and Relig, as well as a number of scattered residential properties. An OHL and its wayleave through the forestry, up the flank of An Leacainn, risk being widely visible from the lower Beauly valley. It would be seen from the Great Glen Way, but visibility may be limited by forestry. The crossing of the Great Glen would be visible from the A82, but mature trees should reduce the extent of this visibility. Similarly, the line would be visible by tourists on the Caledonian Canal and users of the Dochgarroch Moorings, and from cycle tourists on the NCN Route 78, as well as the B862 and the settlements along it. Careful consideration will be required at alignment stage to avoid the crossing of the glen being intrusive. Further east there are occasional scattered residential receptors.	It then follows 2A1 broadening out to cross the Great Glen north of Dochgarroch and across the rolling farmland to the moorland plateau west of Knocknagael substation. From Node 1 to the Moniack Burn, although this route follows the line of the valley it would be perched high on the valley side in a prominent position. As with Route 2A2, from the Moniack Burn to Craig Leach (above the Great Glen) this route also works against the grain of the landscape. <u>Visual</u> From Node 1 to the Moniack Burn, Route 2B avoids passing close to most residential receptors but at the cost of being perched high on the valley side in a prominent position at Tor Clunes, more distantly visible from a relatively wide area. It may also be locally visually intrusive at Reelig Glen. Similarly to Route 2A2, an OHL and its wayleave through the forestry up the flank of An Leacainn would risk being widely visible from the lower Beauly valley. It would be seen from the Great Glen Way but visibility may be limited by forestry. The crossing of the Great Glen would be visible from the A82, but mature trees should reduce the extent of this visibility. Similarly, an OHL would be visible by tourists on the Caledonian Canal and users of the Dochgarroch Moorings, and from cycle tourists on the NCN Route 78, as well as the B862 and the settlements along it. Careful consideration will be required at alignment stage to avoid the crossing of the glen being intrusive. Further east there are occasional scattered residential receptors.	and across the rolling farmland to the moorland plateau west of Knocknagael substation. From Node 1 to the Allt Mòr, whilst inevitably locally disruptive, the route sits reasonably comfortably in the landscape. The section between Ballone/Ladycairn and Blackfold follows the grain of the landscape but would be very intrusive in a pocket of landscape which goes from being locally remote and wild in character at the southern end, to an enclosed attractive valley towards Blackfold. As for the 'A' and 'B' route options, south of Craig Leach there is a slight crease in the hillside which would provide a degree of visual logic to the location of an OHL, whilst west of the Great Glen the gently rising landscape is quite homogenous. <u>Visual</u> From Node 1 to the Allt Mòr, Route 2C1 appears potentially quite well screened, passing a few scattered residential receptors. The section between Ballone/Ladycairn and Craig Leach again passes few residential receptors but would be parallel and potentially close to the Great Glen Way for five to six kilometres. The crossing of the Great Glen would be visible from the A82, but mature trees should reduce the extent of this visibility. Similarly, an OHL would be visible by tourists on the Caledonian Canal and users of the Dochgarroch Moorings, cycle tourists on the NCN Route 78, as well as the B862 and the settlements along it. Careful consideration will be required at alignment stage to avoid the crossing of the glen being intrusive. Further east there are occasional scattered residential receptors.	moorland plateau that has a remote and relatively wild character. It then follows the line of the Allt Glac Ossian through a deep notch in the ridge on the north east side of the Great Glen, to drop into the Great Glen and cross Loch Dochfour south of Kirkton. East of the Loch it cuts across bands of woodland, crossing the parallel valleys at right angles before turning north east, north of Loch Ashie. From Node 1 to the Allt Mòr, whilst inevitably locally disruptive, the route sits reasonably comfortably in the landscape. At Ballone it offers the opportunity to pass south of the main wilder area and avoid the attractive landscapes at and beyond Alltourie. The notch in the ridge and the crease in the hillside between Doire Mhor and Dochfour Hill would provide a degree of visual logic to the location of an OHL. West of the Great Glen although running against the grain of the landscape the route is likely to intrude in the character only relatively locally. <u>Visual</u> From Node 1 to the Allt Mòr, Route 2C2 is potentially quite well screened, passing a few scattered residential receptors although at Ballone it would be clearly visible from the Great Glen Way. The drop into the Great Glen is potentially quite discrete, in a deep notch in the ridge and hillside, however the crossing of the glen would be visible from the A82, with the potential that the terminal tower to the Sealing End Compound needed for passing under Loch Dufour would be in the focus of the framed view along this tourist route road. With careful siting however, mature trees could reduce the extent to which an OHL would be visible. East of the loch, the line would be seen from the B862 as well as by cycle tourists on the NCN Route 78, and it would pass a small number of scattered residential receptors.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.				
Land Use	<u>Agriculture</u> Route 2A1 begins within an area including Class 2 and Class 3.1 land. As Route 2A1 passes south of Lentran,	<u>Agriculture</u> Route 2A2 begins within an area of Land Capable of Agriculture Class 2 and Class 3.1. Where it splits with	<u>Agriculture</u> Route 2B begins in an area of agricultural land of Class 4.1, 4.2, and 6.2. Route 2B continues to pass	<u>Agriculture</u> Route 2C1 begins in an area of land including Class 4.1, 4.2, 6.2 and 6.3. Route 2C1 continues to pass	<u>Agriculture</u> Route 2C2 begins in an area including land of Class 4.1, 4.2, 6.2, and 6.3. Route 2C2 continues to pass

Topic	Route 2A1	Route 2A2	Route 2B	Route 2C1	Route 2C2
	it enters an area of Class 4.1, 5.2, 6.2 and 6.3 land. As the Route crosses the A82 and the Caledonian Canal, the quality of agricultural land begins to increase to Class 3.2 and 3.1. Finally, the most eastern section of the route ends with Class 4.1 and Class 5.2 land. Forestry This route contains 3.60 ha broadleaved woodland, 48.44 ha coniferous woodland and 52.04 ha total woodland. Recreation Route 2A1 passes through a number of core paths, particularly around Dunain Hill, The River Ness and Drumashie Plantation. The route crosses long distance walks such as The Great Glen Way and Loch Ness 360. The route crosses NCN Route 78. Areas that Route 2A1 passes through may be used in places for commercial highland sports such as fishing, stalking and shooting.	Route 2A1, Route 2A2 passes into a short section of Class 3.1, before continuing into an area of land Class 4.1, 5.2 and 6.3. As the Route crosses the A82 and the Caledonian Canal, the quality of agricultural land begins to increase to Class 3.2 and 3.1. Finally, the most eastern section of the route ends with Class 4.1 and Class 5.2 land. Forestry This route contains 12.59 ha broadleaved woodland, 53.00 ha coniferous woodland and 65.59 ha total woodland. Recreation The Recreation appraisal for Route 2A1 also applies to Route 2A2.	through lower quality agricultural land until it crosses the A82 and the Caledonian Canal, where the quality of agricultural land begins to increase to Class 3.2 and 3.1. Finally, the most eastern section of the route ends with Class 4.1 and Class 5.2 land. Forestry This route contains 7.97 ha broadleaved woodland, 27.11 ha coniferous woodland and 35.08 ha total woodland. Recreation Route 2B passes through a number of walking routes, particularly around Black Wood, Reelig Glen, and along the Caledonian Canal. The route crosses NCN Route 78. Areas that Route 2B passes through may be used in places for commercial highland sports such as fishing, stalking and shooting.	through lower quality agricultural land until it crosses the A82 and the Caledonian Canal, where the quality of agricultural land begins to increase to Class 3.2 and 3.1. Finally, the most eastern section of the route ends with Class 4.1 and Class 5.2 land. Forestry This route contains 16.48 ha broadleaved woodland, 60.50 ha coniferous woodland and 76.98 ha total woodland. Recreation Route 2C1 passes through a number of walking routes, particularly around Torr Mor, Reelig Glen, and along the Caledonian Canal. The route crosses NCN Route 78. Areas that Route 2C1 passes through may be used in places for commercial highland sports such as fishing, stalking and shooting.	through lower quality agricultural land until it crosses the A82 and the Caledonian Canal, where the quality of agricultural land increases to Class 3.2. Finally, the most eastern section of the route ends with Class 5.2 and 5.3 land. Forestry This route contains 14.54 ha broadleaved woodland, 57.30 ha coniferous woodland and 71.84 total woodland. Recreation Route 2C2 passes through a number of walking routes, particularly around Drumashie Moor, and along the Caledonian Canal. The route crosses NCN Route 78. Areas that Route 2C2 passes through may be used in places for commercial highland sports such as fishing, stalking and shooting.
Planning	There are proposals known to the planning system in the routes, most of which are not expected to negatively interact with the routes. A permitted application south of Achnagairn Bridge should be noted for formation of stables, reception, outdoor manege, indoor riding school and associated facilities. There are also some permitted applications for scattered tourist accommodation around the Caledonian Canal and in Essich. There is an application within the system for the erection of an extension to Knocknagael Substation, however this isn't expected to negatively interact with the routes as it is an SSEN Transmission project.				There are proposals known to the planning system in this route, mainly erection of new dwellings.
Engineering	Infrastructure Crossings Route 2A1 crosses the River Ness, Caledonian Canal, and an existing 275 kV OHL. The Caledonian Canal is a navigable canal with over 1,400 boats transiting each year and can accommodate vessels with a maximum mast height up to 35m from the waterline. To ensure that statutory clearances are met, tall crossing towers in the region of 90 m in height will be required in this location so that no restriction is applied to users of the canal. The crossing of the existing 275 kV OHL will require undergrounding works to be carried out on this section of the 275kV circuit to allow for the 400kV OHL to pass through. Route 2A1 would require the crossing of four A-roads, 2 B-roads, six minor roads, one local road, and seven restricted local access roads. Environmental Design	Infrastructure Crossings Route 2A2 has the same major crossing challenges as Route 2A1. In terms of road crossings, Route 2A2 crosses one A-road, two B-roads, seven minor roads, one local road and four restricted local access roads. Environmental Design The majority of Route 2A2 lies below 300 m elevation, which is considered constructable and within design specification. The maximum elevation is 309 m. Route 2A2 falls within 10 km of Beauly Firth coastal region. All routes within Section 2 are low risk for Unexploded Ordnance (UXO), contain no landfill or Control of Major Accident Hazard (COMAH) sites. There is a risk of flooding, particularly where the route passes through the Conon Water which has	Infrastructure Crossings Route 2B has the same major crossing challenges as Route 2A1. In terms of road crossings, Route 2B crosses one A-road, two B-roads, six minor roads, one local road and five restricted local access roads. Environmental Design The majority of Route 2B lies below 300 m elevation, which is considered constructable and within design specification. The maximum elevation is 310 m. Route 2B falls within 10 km of Beauly Firth coastal region. All routes within Section 2 are low risk for Unexploded Ordnance (UXO), contain no landfill or Control of Major Accident Hazard (COMAH) sites. There is a risk of flooding in Route 2B.	Infrastructure Crossings Route 2C1 has the same major crossing challenges as Route 2A1. In terms of road crossings, Route 2C1 crosses one A-road, two B-roads, five minor roads, one local road and five restricted local access roads. Environmental Design Route 2C1 has sections ranging from 876 m – 3360 m in length, above 300 m elevation. This is still constructable and within design specification, however as higher altitudes are approached, wind and ice loading increase, which may result in shorter spans due to the additional loading. Where structures are situated in higher altitudes, poorer weather is also typically a factor that needs consideration, as it makes an OHL less accessible, which could impact both construction and maintenance.	Infrastructure Crossings Route 2C2 crosses the Caledonian Canal, Loch Dochfour and two existing 275 kV OHLs. The crossing of Loch Dochfour is greater than 200 m and placement of towers in this location could prove challenging due to significantly steep slopes to the west. The crossing of two existing 275 kV OHLs would also prove challenging due to the need to underground both existing lines. In terms of road crossings, Route 2C2 crosses one A-road, two B-roads, seven minor roads and seven restricted local access roads. Environmental Design The elevation appraisal for Route 2C1 also applies to Route 2C2. Route 2C2 lies further than 10 km from any coastal regions. All routes within Section 2 are low risk for Unexploded Ordnance (UXO), contain no landfill

Topic	Route 2A1	Route 2A2	Route 2B	Route 2C1	Route 2C2
	All of Route 2A1 lies below 300 m elevation, which is considered constructable and within design specification. Route 2A1 falls within 10 km of Beauly Firth coastal region. All routes within Section 2 are low risk for UXO, contain no landfill or COMAH sites. There is a risk of flooding, particularly where the route passes through the Conon Water which has high floor risk, along with a high risk of surface water flooding too. <u>Ground Conditions</u> The majority of Route 2A1 passes through relatively gentle terrain between 0 and 10 degrees. The route steadily climbs on approach to the Caledonia Canal before it rapidly descends where the canal crossing would occur. The slopes at this point are particularly steep reaching a maximum of 30 degrees, however it may be possible to span the majority of this out by siting a tower at the top of the hill then another at the edge of the road next to the canal. <u>Construction/Maintenance</u> Route 2A1 is not considered challenging from an access perspective. At this stage in the routeing process an indicative alignment is used to determine the likely number of angle changes. This is likely to change when it comes to developing the alignment, however it allows for the options to be compared. The number of angle towers required for Route 2A1 is estimated at 12. <u>Proximity</u> Ten residential buildings lie within 170 m of the route. 48 non-residential buildings lie within 170 m of the route. A BT fixed link passes through all routes just after Knocknagael. Route 2A1 passes in close proximity to a number of urban environments including Achnagairn, Easter Moniack, Inchmore and Newtonhill. There are no known wind farms or pipelines within Route 1A.	high floor risk, along with a high risk of surface water flooding too. <u>Ground Conditions</u> Route 2A2 passes through undulated terrain and climbs up the side of Mam Mor. The terrain is still constructable in this region and existing access tracks are present throughout the hillside. On approach to the Caledonian Canal crossing there is a rapid decent in elevation reaching a slope of 34 degrees, however similar to route 2A1 the slope could possibly be spanned out and minimised through the careful placement of the towers in this area. <u>Construction/Maintenance</u> Route 2A2 is not considered challenging from an access perspective. The number of angle towers required for Route 2A2 is estimated at 11. <u>Proximity</u> Six residential buildings lie within 170 m of the route. 23 non-residential buildings lie within 170 m of the route. A BT fixed link passes through all routes just after Knocknagael. Route 2A2 passes in close proximity to a couple of urban environments including Achnagairn and Easter Moniack. There are no known wind farms or pipelines within Route 1A.	<u>Ground Conditions</u> The majority of Route 2B sits between 10 to 20 degrees so is more significant compared to the previous two options. The route has a maximum gradient of 36 degrees which occurs in multiple places due to cutting across the undulating terrain of the local hills. This route will likely have more significant construction challenges. <u>Construction/Maintenance</u> Route 2B is not considered challenging from an access perspective. The number of angle towers required for Route 2B is estimated at 12. <u>Proximity</u> Three residential buildings lie within 170 m of the route. 39 non-residential buildings lie within 170 m of the route. There is one individual turbine approved by the Highland Council next to Blackwood. The turbine is small and will not restrict a significant area of this route. A BT fixed link passes through all routes just after Knocknagael. Route 2B passes in close proximity to the urban environment of Knockbain. There are no known pipelines within Route 1A.	Route 2C1 falls within 10 km of Beauly Firth coastal region. All routes within Section 2 are low risk for Unexploded Ordnance (UXO), contain no landfill or Control of Major Accident Hazard (COMAH) sites. There is a risk of flooding in Route 2C1. <u>Ground Conditions</u> Route 2C1 generally follows along the contours of the area minimising the impact to the proposed OHL, however there will be some side slopes due to this. There is however reasonable access along the slopes making this feasible to construct. Similar to 2A1 and 2A2 the route has a steeper section on approach to the Caledonian Canal where it crosses at the same location. <u>Construction/Maintenance</u> Route 2C1 is not considered challenging from an access perspective. The number of angle towers required for Route 2C1 is estimated at 11. <u>Proximity</u> No residential buildings lie within 170 m of the route. 22 non-residential buildings lie within 170 m of the route. A BT fixed link passes through all routes just after Knocknagael. There are no known wind farms, urban areas or pipelines within Route 1A.	or Control of Major Accident Hazard (COMAH) sites. There is a risk of flooding in Route 2C2, particularly where it meets Loch Dochfour, which has a high flood risk. <u>Ground Conditions</u> Route 2C2 follows the same section as 2A1 to start with before crossing the Caledonian Canal at a location further south. This location is not quite as steep as the alternative options however is more constrained in terms of tower placement. The crossing point at this location is also wider making it more challenging to span out, however it would likely be possible. <u>Construction/Maintenance</u> Route 2C2 is considered slightly challenging from an access perspective due to a section of the route being out with 1 km of an existing track. The number of angle towers required for Route 2C2 is estimated at seven. <u>Proximity</u> No residential buildings lie within 170 m of the route. One non-residential building passes within 170 m of the route. Route 2C2 passes in close proximity to the urban environment of Lochend. There are no known wind farms or pipelines within Route 1A.

Topic	Route 2A1	Route 2A2	Route 2B	Route 2C1	Route 2C2
Economic	This is the lowest cost option for Section 2.	Route 2A2 was the third lowest cost option but still less than 2 % higher total construction cost than the cheapest option. This increase in comparison to the lowest cost option is primarily driven by an increase in length of 0.4 km but this was balanced by the additional crossing protection required for Route 2A1.	This was very close to being the lowest cost option, with difference from lowest cost option of less than 1 %. This reflects the similarity in length between Route 2A1 and 2B. This route has greater tree felling requirements, but this is balanced by Route 2A1 having comparatively more crossings of roads and low voltage OHL circuits.	The route length for Route 2C1 was very similar to that of Route 2C2 (the most expensive option), however this option was comparatively cheaper (roughly 3 % greater than lowest cost, in comparison to 12%) with the smoother route requiring a lower proportion of tension towers along the route reducing installation cost.	Route 2C2 was the highest cost option for this section, roughly 12 % greater than the lowest cost option. The construction costs associated with the additional 0.9 km route length being the main contributor to this difference.

Table 5-4 shows the RAG Ratings for Section 2. Route 2A1 is the Preferred Route from an environmental perspective. It is preferred for Landscape and Visual as it has the best overall 'landscape fit' along the crossing of The Aird, due to having a lower and less intrusive pathway than the other options. Route 2A1 is preferred for Natural Heritage designations due to being furthest away from any statutory designated sites, and preferred for Protected Species due to having a greater proportion of agricultural land / lower proportion of woodlands. It is also preferred for Habitats due to having the least coverage of Annex I habitats. Route 2A2 is the second Preferred Route from an environmental perspective. The least Preferred Route environmentally would be between Route 2B and Route 2C2. Both routes have potential for settings impacts on Scheduled Monuments and GDLs, and Route 2C2 also has the potential for indirect impacts on two Category A Listed Buildings. Route 2C2 was least preferred from a Habitats perspective due to having ancient woodland and irreplaceable peatland that spans the route in many sections, making it unavoidable. Route 2B was least preferred for Landscape Character as the western end sits high on steep ridged sidelong ground where it risks being locally prominent, and it is also potentially intrusive around Moniack Gorge. Visually, it risks being widely visible across The Great Glen, The Aird, and wider area to the north.

Based on the engineering factors considered, the Preferred Route within Section 2 is Route 2C1. It should be noted however that for Route 2C1 to be considered feasible the preceding section would need to use Route 1B2, which has constraints with urban developments and The Belladrum Tartan Heart Festival site. Route 2C1 is considered the Preferred Route due to there being very few residential property constraints within the route, allowing for the number of angle towers to be reduced. The route passes through some steeper side slopes as it navigates along the Great Glen, however existing access would aid with construction in these areas. There are some areas of peat however it is considered that these could be avoided at alignment stage. Route 2A2 is considered as the second Preferred Route, however does have a significant constraint around Easter Moniack in relation to proximity to residential buildings. There is a pinch point between multiple houses that results in encroaching upon the 100 m buffer for at least one property. Once past this pinch point the rest of the route remains clearer, with some challenges associated with undulated terrain as it passes across the hillsides through The Aird, however existing access looks reasonable so should be able to be utilised and improved for construction. Route 2B for the first 4 km is considered to be challenging from a constructability point of view, with the route traversing some steeper side slopes and passing across the tops of the ridges of the local hills. There are also several dwellings around Knockbain that would make navigating through this section difficult. Route 2A1 is considered least preferred due to the impact on a number of local dwellings that would be unavoidable. To maintain a 100m buffer would prove challenging and require a number of sharp angle changes in quick succession. All routes traverse a steep section before crossing the Caledonian Canal and River Ness, however the routes crossing further north are considered preferable from an engineering perspective, with a narrower section requiring to be spanned and more options in terms of tower placement before the crossing. Route 2C2 that crosses to the south must also cross two existing 275 kV overhead lines, compared with only one 275kV crossing if the northern routes and crossing point is used.

For this section variation in the total cost was very low, with the highest cost option (Section 2C2) estimated to only be 12% higher than the lowest cost option. As a result, Capital cost is not considered a driver in the option selection for this section. Operational cost is not considered a driver in the option selection for this section either as the highest cost option is expected to be below the 20% of lowest cost option threshold.

On balance, Route 2A2 has been selected as the Preferred Route. Whilst Route 2A1 is preferred from an environmental perspective, it is least preferred from an engineering perspective due to impacts on a number of residential dwellings that would be unavoidable. Route 2A2 is considered to be the second Preferred Route from an environmental perspective, due to significant cultural heritage, habitats and landscape character constraints associated with the other route options. Route 2A2 is also considered acceptable from an engineering and cost perspective.

Table 5-4 – RAG Ratings for Section 2

	Parameter	Sub-Parameter	Section 2 Corridor Options				
			Option 2A1	Option 2A2	Option 2B	Option 2C1	Option 2C2
Environment	Natural Heritage	Designations	M	M	M	M	M
		Protected Species	M	M	M	M	M
		Habitats	H	H	H	H	H
		Ornithology	L	L	L	L	L
		Geology. Hydrology, Hydrogeology	M	M	M	M	M
	Cultural Heritage	Designations	H	M	H	M	H
		Cultural Heritage Assets	L	L	L	L	H
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating				
	Landscape and Visual	Designations	L	L	L	L	L
		Landscape Character	L/M	M/H	H	M/H	M

	Parameter	Sub-Parameter	Section 2 Corridor Options				
			Option 2A1	Option 2A2	Option 2B	Option 2C1	Option 2C2
		Visual	M	M	M/H	M/H	M
	Land Use	Agriculture	H	H	H	H	L
		Forestry/ Woodland	H	H	H	H	H
		Recreation	M	M	M	M	M
	Planning	Proposals	M	M	M	M	M
Engineering	Infrastructure	Major Crossing	M	M	M	M	H
		Road Crossing	H	L	L	L	L
	Topography	Elevation	L	L	L	M	M
		Atmospheric pollution	M	M	M	M	L
		Contaminated land	L	L	L	L	L
		Flooding	M	M	M	M	M
	Terrain	Terrain	M	L	M	L	L
		Peatland	L	L	L	M	M
	Construction / Maintenance	Access	L	L	L	L	M
		Angle Towers	M	L	M	L	L
	Proximity	Clearance distance to buildings	H	M	M	L	L
		Wind farms	L	L	L	L	L
		Communication masts	L	L	L	L	M
		Urban environments	H	H	H	L	M
		Metallic pipelines	L	L	L	L	L
Cost	Capital	Construction	L	L	L	L	L
	Operational	Inspections	L	L	L	L	L

5.4 Section 3

Table 5-5 shows a comparative analysis of Route 3A, 3B and 3C.

Table 5-5 – Comparative Analysis of Section 3 Routes

Topic	Route 3A	Route 3B	Route 3C
Natural Heritage	Designations There are no statutory designated sites within the route. Designation sites within 10 km include Cairn nan Tri-tighearnan SAC/SSSI, Inner Moray Firth SPA/Ramsar, Longman and Castle Stuart Bay, Loch Ashie SPA/SSSI, Moray Firth SAC/SAP, Kildrummie Karnes SSSI, Beauly Firth SSSI, Cawdor Wood SAC/SSSI, Munlochy Bay, Loch Flemington SPA and Loch Ruthven SPA/SAC/SSSI/Ramsar. The route is in proximity to the Inner Moray Firth SPA/Ramsar and has suitable habitat to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius include a Red Squirrel Stronghold (Daviot Loch Moy), and a Buglife B-Line, both of which lie within the route.	Designations There are no statutory designated sites within the route. Designation sites within 10 km include Cairn nan Tri-tighearnan SAC/SSSI, Loch Ashie SPA/SSSI, Longman and Castle Stuart Bay, Inner Moray Firth SPA/Ramsar, Kildrummie Karnes SSSI, Moray Firth SPA/SAC, Cawdor Wood SAC/SSSI, Loch Flemington SPA, Beauly Firth SSSI, and Loch Ruthven SAC/SPA/SSSI/Ramsar. The route is in proximity to the Inner Moray Firth SPA/Ramsar and has suitable habitat to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius include a Red Squirrel Stronghold (Daviot Loch Moy), and a Buglife B-Line, both of which lie within the route. Protected Species	Designations There is one statutory designated site within Route 3C, which is Littlemill Fluvioglacial Landforms GCR. Designated sites within 10 km of the route include Cairn nan Tri-tighearnan SAC/SSSI, Loch Ashie SPA, Longman and Castle Stuart Bay, Inner Moray Firth SPA/Ramsar, Kildrummie Karnes SSSI, Moray Firth SAC/SPA, Cawdor Wood SAC/SSSI, Loch Flemington SPA and Loch Ruthven SAC/SPA/SSSI/Ramsar. The route is in proximity to the Inner Moray Firth SPA/Ramsar and has suitable habitat to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius include a Red Squirrel Stronghold (Daviot Loch Moy), and a Buglife B-Line, both of which lie within the route. Protected Species

Topic	Route 3A	Route 3B	Route 3C
	Protected Species The habitats and structures within Route 3A are considered suitable to support roosting, commuting and foraging bats; foraging badgers and sett creation; as well as wildcat, pine marten, reptiles and red squirrel. The woodlands on either side of the River Nairn, as well as at the eastern end of the Route, are within a Red Squirrel Stronghold area. Aquatic habitats (dependent on the type, substrate, and obstacles), have the potential to support commuting and foraging otters, water voles, migratory salmonids, and lamprey species. They are considered to be sub-optimal for freshwater pearl mussels. Areas of standing water and slow-flowing field drains have the potential to support breeding amphibian populations, and possibly breeding great crested newts. The varied habitats within Route 3A have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. Habitats Route 3A largely comprises woodland, peatland habitats, agricultural land and the River Nairn and its tributaries including Hollow Burn and Allt Ruidhe Moire. Several water bodies are also located within the route. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; and • H9180 - Tilio-Acerion forests. The NWSS identified native pinewood, upland mixed ashwood, upland birchwood and wet woodland within the route. Of the woodland within the route, seven areas are listed in the AWI. Two areas of irreplaceable ancient woodland (category 2a ancient woodland of semi-natural origin) are located in the south of the route, adjacent to the River Nairn. The remaining areas are category 2b LEPO woodlands. The NWSS also identified small parcels of bog, dwarf shrub heath and fens, marsh and swamp at the edges of the route. BNG The two category 2a ancient woodland of semi-natural origin represent 0.02 % of the total route. Whilst the Category 2b LEPO woodlands in the route are not considered irreplaceable, they are considered high distinctiveness habitats. Areas of Class 1 peat are located in the eastern extent of the route and areas of Class 2 peat are located near Daviot Wood. These areas represent 0.36 % of the total area of the route. The total BU for this route is 3309.54 BU, significantly the highest of the three options. Ornithology	The habitats and their suitability to support protected species within Route 3B are largely equal to those within Route 3A, with the following exceptions: • A lesser area of broadleaved trees is present in Route 3B as well as a lower number of structures. These reduce the habitat's roosting suitability for bat species within the route. • As opposed to Route 3A, Route 3B does not contain a network of waterbodies within 500 m of each other. This reduces the habitat's breeding suitability for great crested newts. Habitats The route largely comprises woodland, peatland habitats, agricultural land and the River Nairn and its tributaries including Allt Lugie, Hollow Burn and Allt Ruidhe Moire. Several water bodies are also located within the route. HABMOS data identifies the following Annex I habitats within the route: • H91C0 - Caledonian forest; and • H9180 - Tilio-Acerion forests. The NWSS identified native pinewood, upland birchwood and upland mixed ashwood within the route. Of these woodlands, a single area of irreplaceable ancient woodland (category 1a ancient woodland of semi-natural origin) spans the width of the route along the River Nairn. The remaining two AWI woodlands within the route are category 2b LEPO woodlands. The NWSS also identified a small parcel of bog and dwarf heath shrub at the western end of the route. BNG The single area of irreplaceable ancient woodland represents 0.82 % of the total area of the route. Whilst the Category 2b LEPO woodlands in the route are not considered irreplaceable, they are considered high distinctiveness habitats. The areas of Class 1 peat are considered irreplaceable blanket bog habitat and represents 0.46 % of the total area of the route. The total BU for this route is 834.80 BU, the lowest total BU of the three options. Ornithology It is considered unlikely that Route 3B would compromise the conservation status of Schedule 1 protected species, or populations of individual species of conservation concern. Hydrology, Geology and Hydrogeology Route 3B crosses a number of watercourses including River Nairn. It is underlain by the Middle Old Red Sandstone moderately productive aquifer, and a very small part to the east is underlain by the Moine Group low productivity aquifer. There are a number of groundwater bodies within Route 3B, including Inverness (ID: 150670), Strathnairn Sand and Gravel (ID: 150767) and Strathnairn, Speyside and Cairngorms (ID: 150709) groundwater bodies.	The habitats and their suitability to support protected species within Route 3C are largely equal to those within Route 3B, with the following exceptions: • A greater area of broadleaved trees is present in Route 3C than Route 3B, but less than Route 3A. A lower number of structures are also present in Route 3C than Route 3B, but also less than Route 3A. In combination, these increase the habitat's roosting suitability for bat species within the Route compared to Route 3B, but have a lower overall suitability for bats compared to Route 3A. • Parts of three waterbodies are present in the western half of Route 3C, south of the B851 carriageway, near Scatraig. These waterbodies form part of a network of waterbodies within 500 m of each other, which extend outwith the route to the south. This increases the habitat's breeding suitability for great crested newts, compared to Route 3B. • The majority of woodlands occurring in the eastern half of the Route, east of the A9 carriageway, are within a Red Squirrel Stronghold area. Habitats The route largely comprises woodland, peatland habitats, agricultural land the River Nairn and its tributaries including Craggie Burn, Hollow Burn and Allt Ruidhe Moire. Several water bodies are also located within the route. HABMOS data identifies the following Annex I habitats within the route: • H91C0 - Caledonian forest; • H9180 - Tilio-Acerion forests; and • H3130 - Oligotrophic to mesotrophic lochs. The NWSS identified native pinewood, upland birchwood and wet woodland within the route. Of the woodland within the route, a single woodland is listed in the AWI. The woodland is category 2b LEPO woodland, and therefore not considered irreplaceable habitat. The NWSS also identified small parcels of bog and dwarf shrub heath at the western end of the route BNG Sections of Class 1 peat are located at the eastern extent of the route. These represent 3.83 % of the total route area. Whilst the Category 2b LEPO woodlands in the route are not considered irreplaceable, they are considered high distinctiveness habitats. The total BU for this route is 1025.55 BU, the middle BU value of the three options. Ornithology It is considered unlikely that Route 3C would compromise the conservation status of Schedule 1 protected species, or populations of individual species of conservation concern. Hydrology, Geology and Hydrogeology Route 3C crosses a number of watercourses including River Nairn and Dalriach Burn. It is underlain by the Middle Old Red Sandstone moderately productive aquifer, and a very small part to the east is underlain by the Moine Group low productivity aquifer.

Topic	Route 3A	Route 3B	Route 3C
	It is considered unlikely that Route 3A would compromise the conservation status of Schedule 1 protected species, or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 3A crosses a number of watercourses including River Nairn and Mill burn. It is underlain by the Middle Old Red Sandstone moderately productive aquifer, and a very small part to the east is underlain by the Moine Group low productivity aquifer. There are a number of groundwater bodies within Route 3A, including Inverness (ID: 150670), Strathnairn Sand and Gravel (ID: 150767) and Strathnairn, Speyside and Cairngorms (ID: 150709) groundwater bodies. There are no DWPA within Route 3A, however there are PWS according to The Highland Council Open Map Data.	There are no DWPA within Route 3B, however there are PWS according to The Highland Council Open Map Data.	There are a number of groundwater bodies within Route 3C, including Inverness (ID: 150670), Strathnairn Sand and Gravel (ID: 150767) and Strathnairn, Speyside and Cairngorms (ID: 150709) groundwater bodies. There are no DWPA within Route 3C, however there are PWS according to The Highland Council Open Map Data.
Cultural Heritage	<u>Designations</u> There are no World Heritage Sites, Garden & Designed Landscapes or Inventory Battlefields within the route. There are two Scheduled Monuments within the route, Bogbain Wood, hut circle and field systems (SM4698) at a pinch point within the central portion of the route and Culdoich, chambered cairn and standing stone (SM11851), located within the eastern extent of the route. In addition there are a number of Scheduled Monuments in proximity to the route including, Culdoich, ring carin (SM3091), Ballaggan, mound (SM11900), Milton of Clava, cairn (SM13650) and Milton of Clava, chapel (SM13652). These are located in a cluster approximately 630 m to the north of the eastern extent of the route. Daltullich House, enclosure (SM11533) is located approximately 410 m to the south of the eastern portion of the route. There is the potential for indirect impacts on these assets, due to their location within a number of pinch points, reduction in these impacts is unlikely. The Battle of Culloden (BTL6) is located approximately 675 m to the north of the route. There is the potential for indirect impacts on this asset. Due to its location alongside a pinch point where the route crosses the River Nairn, reduction in these impacts is unlikely. The Leys Castle GDL (GDL00264) is located approximately 260 m to the north of the route with key panoramic views to the north across Inverness to the Cromarty Firth. Indirect impacts are unlikely to be significant on this asset. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes within the route. There is one Conservation Area, Culloden Muir (CA667), within the western end of the route. There is a single Category C listed Building within the route, Bogbain Farmhouse (LB8031). There is the potential for direct impacts on this asset.	<u>Designations</u> There are no World Heritage Sites, Garden & Designed Landscapes or Inventory Battlefields within the route. There is one Scheduled Monument within the central portion of the route at Daviot Cottage, Mains of Daviot Farm, ring cairn and stone circle (SM3085). In addition, there are further Scheduled Monuments in proximity to the route including Daviot Castle (SM5486) approximately 300 m to the south and Daltullich House, enclosure (SM11533) approximately 300 m to the north of the central portion of the route. Culdoich, chambered cairn and standing stone (SM11851), is located approximately 30 m from the route at the eastern periphery. The Battle of Culloden (BTL6) is located approximately 930 m to the north of the route. There is the potential for indirect impacts on this asset, however these can be reduced by siting alignments to the southern periphery of the route at the eastern extents if possible. Within the route, there are nine undesignated assets with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes or Conservation Areas within the route. There are three Listed Buildings within proximity of the route where the potential for indirect impacts exists. Dalltullich Mains House (LB1715), Category B, is located circa 220 m to the north of the eastern portion of the route. Daviot Mains (LB1703) and House of Daviot (LB1702) are both located circa 250 m south of the central portion of the route. Culloden Muir (CA667) is located 240 m to the north of the eastern end of the route giving rise to the potential for indirect impacts.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments, Garden & Designed Landscapes or Inventory Battlefields within the route. The Scheduled Monument, Craggie Cottage, settlement cairns and field system (SM4712), is located approximately 220 m to the north of the route. There is the potential for indirect impacts on this asset in views to the south west. These are against a backdrop of existing infrastructure with the presence of the A9. The Battle of Culloden (BTL6) is located approximately 930 m to the north of the route. There is the potential for indirect impacts on this asset, however these can be reduced by siting alignments to the southern periphery of the route at the eastern extents if possible. Within the route, there are 22 undesignated assets concentrated in the west, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes or Conservation Areas within the route. There is a single Category C Listed Building, Littlemill Bridge over the Allt Na Fuar Ghlaic (LB1705), located centrally in the western portion of the route. This asset has potential for direct and indirect impacts. There is an additional Listed Building, Faille Bridge (LB1683), Category B, located circa 190 m north of the route in the eastern portion. There is the potential for indirect impacts on this asset.

Topic	Route 3A	Route 3B	Route 3C
	There are a cluster of three Listed Buildings (Leys Castle (LB8053) Category A, Leys Castle Grange (LB8055) Category B, and Leys Castle Lodge (LB8054) Category C) within proximity of the route to the north of the western extent. These are within Leys Castle (GDL00264) where the key views are directed north towards Inverness. Any indirect impacts are unlikely to be significant.		
Landscape and Visual	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Drynachan, Lochindorb and Dava Moors SLA lies approximately 2 km east of the east end of the route. However, intervening topography limits the potential for an OHL in this route to compromise the key characteristics of the SLA. Route 3A crosses the southern tip of the Culloden Muir Conservation Area and an OHL on this route has the potential to be intrusive in views from the battlefield area. Route 3A runs north east from the B861 across Drumossie Muir, approximately following the contours of this gently sloping area, partly across open moorland (Flat Moorland Plateau with Woodland LCT 223), partly a mix of forestry, muir and woodland (the upper edges of Rolling Farmland and Woodland LCT 228) to cross the A9 at Daviot Wood, then narrows to cross the incised wooded valley of the River Nairn (Farmed Strath, LCT 227) just north of Cottartown and onto the edge of the uplands (Rolling Uplands – Inverness LCT 221). Whilst it would affect the landscape locally, an OHL on this route is unlikely to be intrusive except locally across the valley of the River Nairn. <u>Visual</u> There are few sensitive receptors east of the A9, apart from at Bogbain and Daviot where the woods are promoted for local walks. An OHL in the north of the route would risk crossing the A9 where the view opens up to Inverness on A9 northbound, intruding into the view and sense of arrival from the road. Either side of the River Nairn there is the risk of being very closely visible from a number of residential receptors.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Drynachan, Lochindorb and Dava Moors SLA lies approximately 2 km east of the east end of the route. However, intervening topography limits the potential for an OHL in this route to compromise the key characteristics of the SLA. Route 3B would be visible from the Culloden Muir Conservation Area but is unlikely to be significantly intrusive in views from the battlefield area. Route 3B runs east north east from the B861 across Drumossie Muir, gently rising parallel to the existing 275 kV OHL, across open moorland and forestry (Flat Moorland Plateau with Woodland LCT 223 to cross the A9 at the southern edge of Daviot Wood, then across the incised wooded valley of the River Nairn (Farmed Strath, LCT 227) just north of House of Daviot and onto the edge of the uplands (Rolling Uplands – Inverness LCT 221). Whilst it would affect the landscape locally, an OHL on this route is unlikely to be intrusive except locally across the valley of the River Nairn. <u>Visual</u> There are few sensitive receptors east of the A9, apart from at Bogbain and Daviot where the woods are promoted for local walks. The crossing of the A9 occurs at a location where it would be relatively discreet. East of the River Nairn there is the risk of being closely visible from a small number of residential receptors.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Drynachan, Lochindorb and Dava Moors SLA lies approximately 2 km east of the east end of the route. However, intervening topography limits the potential for an OHL in this route to compromise the key characteristics of the SLA. Route 3C would be distantly visible from the Culloden Muir Conservation Area and is unlikely to be significantly intrusive in views from the battlefield area. Route 3C runs east south east from the B861 across Drumossie Muir, rising across open moorland and forestry (Flat Moorland Plateau with Woodland LCT 223 to cross the River Nairn and the A9 south of Daviot, where the strath (Farmed Strath, LCT 227) widens, it then runs through the edge of the uplands (Rolling Uplands – Inverness LCT 221) climbing the northern ridge of Beinn a'Bhearlaich before turning north, dropping into and across the valley of the Craggie Burn at Meallmore Lodge, then rising again over the bealach between Meall Mor and Beinn a'Bhuchanaich. <u>Visual</u> An OHL on this route risks being intrusive and potentially prominent across the attractive broad valley bowl at the confluence of the River Nairn & Craggie Burn at Daviot. There are few sensitive receptors east of the A9, apart from at Daviot where the woods are promoted for local walks, and there are few close sensitive receptors at the crossing of the River Nairn. However, an alignment on Route 3C would likely be clearly visible and intrusive in the big open scenic view from the A9 southbound where it sweeps around Daviot, potentially skylined in places in views from the village and from the road.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.		
Land Use	<u>Agriculture</u> Route 3A begins in an area including Class 4.1 and 5.1 land, before moving into higher quality land as it moves eastwards. It passes through Class 3.2 land which is capable of average production though high yields of barley, oats and grass can be obtained. <u>Forestry</u> This route contains 9.01 ha broadleaved woodland, 26.13 ha coniferous woodland and 35.14 ha total woodland. <u>Recreation</u>	<u>Agriculture</u> Route 3B takes a similar route to Route 3A and moves through higher quality land as it moves eastwards. It passes through land of Class 4.1 and 5.1 before moving through Class 3.2 land as it nears the River Nairn. <u>Forestry</u> This route contains 1.54 ha broadleaved woodland, 45.62 ha coniferous woodland and 47.16 ha total woodland. <u>Recreation</u>	<u>Agriculture</u> Route 3C begins in an area including land of Class 5.1 and 5.2. It then passes through higher quality Class 3.2 land close to the River Nairn. The route pass through land of varying quality between Class 4.1 – 6.1 through Craggie Burn. <u>Forestry</u> This route contains 1.26 ha broadleaved woodland, 57.97 ha coniferous woodland and 59.23 ha total woodland. <u>Recreation</u> Route 3C passes through a number of walking routes. This route crosses NCN Route 7.

Topic	Route 3A	Route 3B	Route 3C
	Route 3A passes through a number of walking routes, in particular, near Daviot Wood and the River Nairn. General Wade's Military Road is an important route through Dundavie Wood which may be impacted by this route. This route crosses NCN Route 7. The area that Route 3A passes through may be used in places for commercial highland sports such as fishing, stalking and shooting. Specifically Daviot Wood and the River Nairn.	Route 3B passes through a number of walking routes, in particular, near Meal Mor and the River Nairn. This route crosses NCN Route 7. The area that Route 3B passes through may be used in places for commercial highland sports such as fishing, stalking and shooting.	The area that Route 3C passes through may be used in places for commercial highland sports such as fishing, stalking and shooting.
Planning	Route 3A passes through an area of application under consideration for 400 mixed use units, east of Milton of Leys. Route 3A runs through Culduthel, Slackbule and Milton of Leys, which are areas safeguarded for future development under the Highland Local Development Plan.	There are proposals known to the planning system in the route, however these are not expected to negatively interact with the route. The route is not expected to impact areas sighted for residential or industrial expansion in the Highland Local Development Plan.	There are proposals known to the planning system within the route. North east of the Mains of Faillie there is a planning application for the erection of a house and access. At Scatraig there is a permitted application for change of use, part demolition and erection of extension to agricultural buildings to form a farm shop and café. Directly east of the A9 is a permitted application for a recycling facility and an operating yard.
Engineering	<u>Infrastructure Crossings</u> Route 3A would require crossing of the Highland Mainline railway, and an existing 275 kV OHL. It would also require the crossing of one A-road (A9), one B-road, and one minor road. <u>Environmental Design</u> All of Route 3A lies below 300 m elevation, which is considered constructable and within design specification. Route 3A passes within 10 km of Inner Moray Firth possible coastal region, which may result in higher pollution levels. It is a low risk area for UXO and there are no landfill or COMAH sites within the route. In addition, the risk of flooding is low. <u>Ground Conditions</u> All routes within Section 3 are considered constructable from a terrain perspective. Peat exists within the route, however designated peatland does not span the route in any areas. <u>Construction and Maintenance</u> Route 3A passes through areas with numerous existing tracks in close proximity so access is not likely to pose any significant construction difficulties. Route 3A does not have significant angle changes or require excessive numbers of angle towers. <u>Proximity</u> There are no residential buildings within 170 m of the route. Seven non-residential buildings lie within 170 m of the route. A BT fixed link is present for a significant proportion of Route 3A, as well as another communication mast. There are no known metallic pipelines, wind farms, or urban areas in close proximity to Route 3A.	<u>Infrastructure Crossings</u> Route 3B would require crossing of the Highland Mainline railway. It would also require the crossing of one A-road (A9), one B-road, one minor road and two restricted local access roads. <u>Environmental Design</u> The environmental design appraisal for Route 3A is also applicable to Route 3B. <u>Ground Conditions</u> The ground conditions appraisal for Route 3A is also applicable to Route 3B. <u>Construction and Maintenance</u> The construction and maintenance appraisal for Route 3A is also applicable to Route 3B. <u>Proximity</u> One residential building passes within 170 m of the route. Two non-residential buildings lie within 170 m of the route. A BT fixed link is present within the route. There are no known metallic pipelines, wind farms, or urban areas in close proximity to Route 3B.	<u>Infrastructure Crossings</u> Route 3C would require crossing of the Highland Mainline railway. It would also require the crossing of one A-road (A9), two B-roads, one minor road, one local road, and one restricted local access road. <u>Environmental Design</u> Route 3C is the most southern route and enters some of the surrounding hillsides, namely Neinn a Bheulaich and Beinn a Bhuchanaich. This results in approximately 2 km of this route reaching altitudes up to 345 m. The majority of Route 3C sits further than 10 km from any coastal regions. It is a low risk area for UXO, and there are no landfill or COMAH sites within the route. The risk of flooding is low. <u>Ground Conditions</u> The ground conditions appraisal for Route 3A is also applicable to Route 3C. <u>Construction and Maintenance</u> Access into the hillside of Beinn a Bheurliach and Beinn a Bhuchanaich is likely to be challenging and substantial access tracks would need to be constructed within these areas to facilitate development of an OHL. Route 3B requires no angle changes and is able to parallel with the existing 275 KV OHL. <u>Proximity</u> There are no residential buildings within 170 m of the route. Three non-residential buildings lie within 170 m of the route. A BT fixed link is present within the route. There are no known metallic pipelines, wind farms or urban areas in close proximity to Route 3C.

Topic	Route 3A	Route 3B	Route 3C
Economic	Estimated construction costs for Section 3A are more than 50 % higher than the lowest cost option. This significant addition in cost is caused by requirement for a cable dip of an existing 275 kV OHL to facilitate crossing, this is not required in the other options considered. There is an increase of just 0.5 km in route length, in comparison to the lowest cost option.	This route is the lowest cost option.	Route 3C is significantly longer (~33 %) than the lowest cost option. This increase in length is reflected in the cost estimates with an estimate cost ~36 % higher than the lowest cost option.

Table 5-6 shows the RAG Ratings for Section 3. From an environmental perspective a Preferred Route was not immediately clear, however Route 3B is marginally preferred overall. Whilst Culloden Battlefield is constraining the northern routes of Section 3, there are great Landscape and Visual pressures on Route 3C in the south. Both landscape character and visual impacts of Route 3C have been assigned a Red RAG rating due to the likelihood of the OHL being intrusive and prominent across the attractive broad valley bowl at the confluence of the River Nairn and Craggie Burn at Daviot. On balance, Route 3B is preferred because it offers the opportunity to site the OHL further from Culloden Battlefield to reduce indirect impacts, and avoids the Landscape and Visual pressures in the south that Route 3C is subject to. Route 3B also runs along the pathways of an existing OHL, meaning any effects on the landscape would be concentrated in one area, rather than spreading them wider. Additionally, Route 3B is preferred from a Protected Species perspective due to having a lesser proportion of broadleaf woodlands and waterbodies, however it is marginally least preferred from a Habitats perspective due to unavoidable category 1a ancient woodland of semi-natural origin along the River Nairn, although there may be potential for the OHL to pass over the top of the trees.

Within Section 3 the Preferred Route from an engineering perspective is Route 3A. To enter into Route 3A from Section 2 the existing 275 kV OHL would need to be crossed, however this line runs all the way to the existing Blackhillock substation and will require crossing at least one location before entering the proposed Blackhillock 2 substation site. This remains the Preferred Route as long as the route remains to the north of the existing 275 kV line as it progresses eastwards towards Blackhillock. The terrain within 3A remains relatively flat, passing through mainly woodland and fields. The main disadvantage to this route is to the east of Daviot Wood, where it swings northwards to avoid a group of residential properties. This pushes the route closer to the towns on the outskirts of Inverness and also closer towards Culloden battlefield.

Route 3B is considered a Preferred Route if the route is to continue to the south of the existing 275 kV OHL. There is little difference from an engineering perspective between Routes 3A and 3B, and 3B offers the option to parallel with the existing OHL, which allows existing accesses to be utilised or new access to be shared, however careful alignment would be required to minimise impacts on properties located between the two lines.

The least Preferred Route within this section was Route 3C. This option sits further south and encroaches into the hillsides of Beinn a Bheurlaich and Beinn a Bhuchanaich. The terrain in these areas is slightly more challenging, with longer sections passing through some relatively steep side slopes. The route also climbs in altitude in this option, passing directly over the summit of some of the surrounding hills which would be extremely visible on the landscape. Several sections also have limited access so significant works would be required to extend the existing tracks in the surrounding area to make it constructable.

From both a Capital and Operational cost perspective, Route 3B is preferred for Section 3. It is the only option classed as ‘Green’ in the RAG scoring. Route 3A should be avoided, if possible.

On balance, Route 3B has been selected as the Preferred Route. This is because it offers the opportunity to site the OHL further from Culloden Battlefield to reduce indirect impacts, whilst also avoiding the landscape and visual pressures and engineering constraints affecting Route 3C to the south.

Table 5-6 – RAG Ratings for Section 3

	Parameter	Sub-Parameter	Section 3 Route Options		
			Option 3A	Option 3B	Option 3C
Environment	Natural Heritage	Designations	M	M	M
		Protected Species	M	M	M
		Habitats	M	H	H
		Ornithology	L	L	L
		Geology. Hydrology, Hydrogeology	M	M	M
	Cultural Heritage	Designations	H	H	L
		Cultural Heritage Assets	M	L	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating		
	Landscape and Visual	Designations	M/H	L	L
		Landscape Character	L/M	L/M	H
		Visual	M	L/M	H
	Land Use	Agriculture	L	L	L
		Forestry/ Woodland	H	H	H

	Parameter	Sub-Parameter	Section 3 Route Options		
			Option 3A	Option 3B	Option 3C
		Recreation	M	M	M
	Planning	Proposals	M	L	M
Engineering	Infrastructure Crossings	Major Crossings	M	L	L
		Road Crossings	L	L	M
	Topography	Elevation	L	L	M
		Atmospheric pollution	M	M	L
		Contaminated land	L	L	L
		Flooding	L	L	L
	Ground Conditions	Terrain	L	L	L
		Peatland	L	L	L
	Construction / Maintenance	Access	L	L	M
		Angle Towers	L	L	L
	Proximity	Clearance distance to buildings	L	M	L
		Wind farms	L	L	L
		Communication masts	M	L	L
		Urban environments	L	L	L
		Metallic pipelines	L	L	L
Cost	Capital		H	L	M
	Operational		H	L	M

5.5 Section 4

Table **5-7** shows a comparative analysis of Routes 4A1, 4A2, 4B and 4C.

Table 5-7 – Comparative Analysis of Section 4 Routes

Topic	Route 4A1	Route 4A2	Route 4B	Route 4C
Natural Heritage	Designations Statutory designated sites within the route include Dalroy and Clava Landforms SSSI, Clava and Dalharn GCRs and Cawdor Wood SSSI/SAC, which all have the potential to be avoided. Designated sites within 10 km include Cawdor Wood SSSI/SAC, Carn na Tig-tighearnan, Carn nan Tri-tighearnan SAC/SSSI, Lower Findhorn Woods SSSI/SAC, Darnaway and Lethen Forest SPA , Loch Flemington SPA, Kildrummie Kames SSSI, Moidach More SAC/SSSI, Longman and Castle Stuart Bays SSSI, Inner Moray Firth SPA/Ramsar, Loch Flemington SPA, Moray Firth SAC/SPA, Moray and Nairn Coast SPA/Ramsar, Culbin Sands, Culbin Forest and Findhorn Bay SSSI, Culbin Bar SAC and Whiteness Head SSSI. The route is in proximity to the Inner Moray Firth SPA/Ramsar and has suitable habitat to support wintering geese and breeding osprey potentially associated with these sites.	Designations Statutory designated sites within the route include Dalroy and Clava Landforms SSSI, Clava and Dalharn GCRs and Cawdor Wood SSSI/SAC, which all have the potential to be avoided. Designated sites within 10 km include Cawdor Wood SSSI/SAC, Culbin Bar Sand, Carn na Tig-tighearnan SAC/SSSI, Lower Findhorn Woods /SAC/SSSI, Darnaway and Lethen Forest SPA, Loch Flemington SPA, Kildrummie Kames SSSI, Moidach More SAC/SSSI, Inner Moray Firth SPA/Ramsar, Longman and Castle Stuart Bays SSSI, Moray Firth SAC/SPA, Moray and Nairn Coast SPA/Ramsar, Culbin Sands, Culbin Forest and Findhorn Bay SSSI, Culbin Bar SAC and Whiteness Head SSSI. The route is in proximity to the Inner Moray Firth SPA/Ramsar and has suitable habitat to support wintering geese and breeding osprey potentially associated with these sites.	Designations There are no statutory designated sites within the route. Designated sites within 10 km include Cawdor Wood SSSI/SAC, Carn na Tig-tighearnan SAC/SSSI, Lower Findhorn Woods SAC/SSSI, Darnaway and Lethen Forest SPA, Loch Flemington SPA, Kildrummie Kames SSSI, Moidach More SAC, Inner Moray Firth SPA/Ramsar, Longman and Castle Stuart Bays SSSI and Moray Firth SAC/SPA. The route is in proximity to the Inner Moray Firth SPA/Ramsar and has suitable habitat to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line that intersects through the route boundary. Protected Species	Designations The Muckle Burn and Clunas GCRs is located within Route 4C. Designated sites within 10 km of Route 4C include Carn na Tig-tighearnan SAC/SSSI, Cawdor Wood SAC/SSSI, Lower Findhorn Woods SAC/SSSI, Darnaway and Lethan Forest SPA, Moidach Moore SAC/SSSI, Kildrummie Kames SSSI, Longman and Castle Stuart Bays SSSI, Inner Moray Firth SPA/Ramsar, Loch Flemington SPA and Moray Firth SAC/SPA. The route is in proximity to the Inner Moray Firth SPA/Ramsar and has suitable habitat to support wintering geese and breeding osprey potentially associated with these sites. Non-statutory designations and nature conservation sites within a 2 km radius include: 58 AWI-designated sites, 11 located within the route boundary. A Buglife B-Line intersects through the route boundary. A Buglife IIA (Findhorn Culbin) is located within the route boundary.

Topic	Route 4A1	Route 4A2	Route 4B	Route 4C
	Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line intersects through the route boundary. There is a Buglife IIA (Findhorn Culbin) within the route boundary. Protected Species The habitats and structures within Route 4A1 have the potential to support roosting, foraging and commuting bats; foraging badgers and sett creation; wildcats, pine marten, red squirrel and reptiles. Aquatic habitats (dependent on type, substrate and obstacles) have the potential to support commuting and foraging otters, water voles, migratory salmonids and lamprey species, but are considered sub-optimal for freshwater pearl mussel. Areas of standing water and slow-flowing field drains are present, which have the potential to support breeding amphibian populations, including great crested newts. The varied habitats within Route 4A1 have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. Habitats Route 4A1 largely comprises woodland, peatland habitats, agricultural land and the River Findhorn as well as several smaller watercourses. Several water bodies are also located within the route including Loch Belivat. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; • H91E0 - Alluvial forests; • H91C0 - Caledonian forest; and • H9180 - Tilio-Acerion forests. The NWSS identified lowland mixed deciduous woodland, native pinewood, upland mixed ashwood, upland birchwood, upland oakwood and wet woodland within the route. Of the woodland within the route, 25 areas are listed in the AWI. BNG Four areas of irreplaceable ancient woodland are located within the route. The woodlands represents 0.08 % of the total route area. The remaining woodland is not considered irreplaceable and comprises category 2b LEPO woodlands. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. These areas represent 3.48 % of the total route area. The total BU for this route is 12623.446 BU, second highest total BU of the four options.	Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line intersects through the route boundary. Protected Species The habitats and their suitability to support protected species within Route 4A2 are largely equal to those within Route 4A1, with the following exceptions, where the boundary differs within the vicinity of Redburn and Ardclach: • A lesser area of coniferous woodland is present in Route 4A2. However, a greater proportion of mature broadleaved is present, increasing the habitat's roosting suitability for bat species within the Route. • An additional network of waterbodies within 500 m of each other is present at Achagour Fishery in the east of the Route. However, due to their usage are considered unlikely to support breeding amphibian populations. Habitats The route largely comprises woodland, peatland habitats, agricultural land and the River Findhorn as well as several smaller watercourses. Several water bodies are also located within the route. HABMOS data identifies the same Annex I habitats in Route 4A2 as Route 4A1. The NWSS identified native pinewood, upland mixed ashwood, upland birchwood, upland oakwood and wet woodland within the route. Of the woodland within the Route, 19 areas are listed in the AWI. BNG A single area of irreplaceable ancient woodland is located along the northern perimeter (Cawdor Wood). This represents 0.01 % of the total area of the route. The remaining woodland is not considered irreplaceable and comprises category 2b LEPO woodlands and one (Roy map) woodland. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. These represent 4.13 % of the total route area. All areas of blanket bog should be avoidable. The total BU for this route is 11,228.8 BU, the third highest total BU of the four options. Ornithology	The habitats and their suitability to support protected species within Route 4B are largely reflective of those within Route 4A2, with the following exceptions: • Lesser proportions of coniferous and broadleaf woodland are present in Route 4B, which decreases the habitat's suitability for bat species; pine marten; red squirrels; and wildcats. • A lower number of structures are present in this Route, which decreases the habitat's roosting suitability for bat species. • The only network of waterbodies within 500 m of each other is present at Achagour Fishery in the east of the Route. This lowers the Route's suitability to support great crested newts. • A lower number of standalone waterbodies are present in Route 4B. This lowers the Route's suitability to support other amphibian species. Habitats The route largely comprises woodland, peatland habitats, agricultural land and the River Findhorn as well as several smaller watercourses. Several water bodies are also located within the route. HABMOS data identifies the same Annex I habitats in Route 4B as Route 4A1. The NWSS identified native pinewood, upland birchwood and wet woodland within the route. Of the woodland within the route, nine areas are listed in the AWI. BNG No irreplaceable woodland is present within this route; however, high distinctiveness woodland is present in bands across the route. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. These represent 16.17 % of the total route area and are likely unavoidable. The total BU for this route is 6669.67 BU, the lowest total BU of the four options. Ornithology The ornithology appraisal for Route 4A1 is also applicable to Route 4B. Hydrology, Geology and Hydrogeology	Protected Species The habitats and their suitability to support protected species within Route 4C are largely reflective of those within Route 4C, with the following exceptions: • A greater proportion of broadleaf woodland is present in Route 4C, which increases the habitat's suitability for bat species compared to Route 4B, but less than Routes 4A1 and 4A2. • A greater number of structures are present in this route, which increases the habitat's roosting suitability for bat species compared to Route 4B, but less than Routes 4A1 and 4A2. • A greater number of standalone waterbodies are present in Route 4C. This increases the habitat's suitability for amphibians compared to Route 4B, but less than Routes 4A1 and 4A2. Habitats The route largely comprises woodland, peatland habitats, agricultural land, the River Findhorn as well as other smaller watercourses. Several waterbodies are also located within the route, including Clunas Reservoir and Loch of Boath. HABMOS data identifies the same Annex I habitats in Route 4C as Route 4A1. The NWSS identified native pinewood, upland oakwood, upland birchwood and wet woodland within the route. Of the woodland within the Route, 11 areas are listed in the AWI. BNG No irreplaceable woodland is present within this route; however, high distinctiveness woodland is present in bands across the route. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat, representing 19.79 % of the total Route area. The total BU for this route is 13677.79 BU, the highest total BU of the four options. Ornithology The ornithology appraisal for Route 4A1 is also applicable to Route 4B. Hydrology, Geology and Hydrogeology Route 4C crosses the River Findhorn, Cawdor Burn, Black Burn, Muckle Burn, and other unnamed watercourses.

Topic	Route 4A1	Route 4A2	Route 4B	Route 4C
	Ornithology Route 4A1 intersects areas of potentially suitable habitat for Capercaillie. Otherwise, it is considered unlikely that the route would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. Hydrology, Geology and Hydrogeology Route 4A1 crosses the River Findhorn, Cawdor Burn, Black Burn and Muckle burn as well as other unnamed watercourses. The route is underlain by Middle Old Red Sandstone moderately productive aquifer and Moine Group and Unnamed Igneous Intrusion, Late Silurian to early Devonian low productivity aquifers. Route 4A1 is also underlain by the Strathnairn, Speyside and Cairngorms (ID: 150709), Lower Nairn Sand and Gravel (ID: 150791) and Findhorn and Muckle Burn Sand and Gravel (ID: 150812) groundwater bodies. There are no DWPA within the route, however there are PWS according to The Highland Council Open Map Data.	The ornithology appraisal for Route 4A1 is also applicable to Route 4A2. Hydrology, Geology and Hydrogeology Route 4A2 crosses the River Findhorn, Cawdor Burn, Black Burn, Muckle Burn, Red Burn and other unnamed watercourses. Route 4A2 is underlain by the same aquifers and groundwater bodies as Route 4A1. Route 4A2 is not located within any DWPA, however there are PWS within the route according to The Highland Council Open Map Data.	Route 4B crosses the River Findhorn, Cawdor Burn, Black Burn, Muckle Burn and other unnamed watercourses. Route 4A2 is underlain by the same aquifers and groundwater bodies as Route 4A1. Route 4B is not located within any DWPA, however there are PWS within the route according to The Highland Council Open Map Data.	Route 4C is underlain by the same aquifers and groundwater bodies as Route 4A1. Route 4C is not located within any DWPA, however there are PWS within the route according to The Highland Council Open Map Data.
Cultural Heritage	Designations There are no World Heritage Sites or Inventory Battlefields within the route. There is one GDL within the central portion of the route, Cawdor Castle (GDL00099). Any alignment should ensure no direct impacts on this asset. The potential exists for indirect impacts on views to the south. There is one Scheduled Monument within the central portion of the route, St Barevan's Church and Churchyard (SM3116) at Foxwood. Any alignment should avoid direct impacts on this asset. In addition, there are a number of Scheduled Monuments in proximity to the route including Cantraydoune motte (SM3189), Easter Rattich, depopulated settlement (SM11876), and Dun Evan, fort (SM2896). There is the potential for indirect impacts on these assets. Within the route, there are 54 undesignated assets dispersed across the length. There is the potential for direct impacts, however these impacts can be reduced through micro siting any alignments to avoid these assets. Assets There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There is one Category A Listed Building within the route, Logie Bridge (LB564) and the potential exists for direct and indirect impacts on this asset. Direct impacts should be avoided when developing the OHL alignment.	Designations There are no World Heritage Sites or Inventory Battlefields within the route. There is one GDL within the central portion of the route, Cawdor Castle (GDL00099). The potential exists for indirect impacts on views to the south. There is one Scheduled Monument within the central portion of the route, St Barevan's Church and Churchyard (SM3116) at Foxwood. There is an additional Scheduled Monument within the eastern portion of the route, Levratattich, cairn (SM11738). Any alignments should avoid direct impacts on these assets. In addition, there are a number of Scheduled Monuments in proximity to the route including Cantraydoune motte (SM3189), Easter Rattich, depopulated settlement (SM11876) and Dun Evan, fort (SM2896). There is the potential for indirect impacts on these assets. Within the route, there are 60 undesignated assets dispersed across the length and there is potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There is one Category B Listed Building within the route, Ardclach Old Parish Church and Burial Ground (LB554) and there is the potential for direct and indirect impacts on this	Designations There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There are a number of Scheduled Monuments in proximity to the route, Levratattich, cairn (SM11738), Easter Rattich, depopulated settlement (SM11876) and Rehiran Farm House, cairn (SM11797). There is the potential for indirect impacts on these assets. Within the route, there are 17 undesignated assets dispersed across the length. There is the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There are a number of Listed Buildings within proximity of the route where the potential for indirect impacts exists including Ardclach Bell Tower (LB551), Category A, Clunas House (LB1737), Category B, and Ardclach Old Parish Church and Burial Ground (LB554), Category B.	Designations There are no World Heritage Sites, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There is a single Scheduled Monument within the route, Rehiran Farm House, cairn (SM11797). Direct impacts should be avoided when developing the OHL alignment. The potential exists for indirect impacts. There is an additional Scheduled Monument in proximity to the route, Easter Rattich, depopulated settlement (SM11876) and there is the potential for indirect impacts on this asset. Within the route, there are 38 undesignated assets dispersed across the length, all with the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There are a number of Listed Buildings within proximity of the route where the potential for indirect impacts exists including, Ardclach Bell Tower (LB551), Category A, Clunas House (LB1737), Category B, Highland Boath Bridge (LB5107), Category B, Ardclach Old Parish Church and Burial Ground (LB554), Category B.

Topic	Route 4A1	Route 4A2	Route 4B	Route 4C
	There are a number of Listed Buildings within proximity of the route where the potential for indirect impacts exists, including Category A Listed Building Culloden Moor Viaduct (LB1709) in the Culloden Muir (CA667). There are two Category C Listed Buildings along the route, Newton of Belivat (LB565) and Bareven Bridge (LB1724) and there is the potential for indirect impacts on these assets.	asset. Direct impacts should be avoided when developing the OHL alignment. There are a number of Listed Buildings and a Conservation Area within proximity of the route where the potential for indirect impacts exist, including Category A Listed Building Culloden Moor Viaduct (LB1709) in the Culloden Muir (CA667), a Category C Listed Building, Bareven Bridge (LB1724) and a Category A Listed Building, Ardclach Bell Tower (LB551). There is the potential for indirect impacts on these assets.		
Landscape and Visual	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Drynachan, Lochindorb and Dava Moors SLA lies slightly over a kilometre south of the route at the closest point. Whilst the route passes through areas of the same landscape character area as the SLA, it lies in the forested lower fringes of these such that distance, topography and vegetation patterns would limit the potential for Route 4A1 to compromise the key characteristics of the SLA. The western end of Route 4A1 lies very close to the Culloden Muir Conservation Area and an OHL on the route has the potential to be intrusive in views from the battlefield area. Route 4A1 runs north east along the foot of the rolling uplands (Rolling Uplands – Inverness LCT 221) north of the existing OHL following the grain of the landscape with options to be well backclothed in accordance with Holford Rule 4. It then curves east through forestry and farmland, the southern edge of the Rolling Farmland and Forests - Moray & Nairn (LCT 285) before turning south east through a patchwork of woodland, forestry and farmland (Upland Moorland and Forestry, LCT 290) and across the wooded incised valley of the River Findhorn (Narrow Wooded Valley - Moray & Nairn, LCT 286) north of Ferness. <u>Visual</u> The western end of the route risks being perceived as intrusive on the landscape of the wider Culloden battlefield area. Option 4A1 risks being visible from scattered residential properties along most of the route, although there is the potential to pass reasonably wide of them, and forestry would provide some local screening. It would also be visible from both residential and visitor receptors in the Culloden and Clava areas, probably skylined for a short distance. The east end of the route crosses the A939 three times but is likely to be substantially screened in views from the road by forestry and woodland.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Drynachan, Lochindorb and Dava Moors SLA lies slightly over a kilometre south of the route at the closest point. Whilst the route passes through areas of the same landscape character area as the SLA, it lies in the forested lower fringes of these such that distance, topography and vegetation patterns would limit the potential for Route 4A1 to compromise the key characteristics of the SLA. The western end of Route 4A1 lies very close to the Culloden Muir Conservation Area and an OHL on the route has the potential to be intrusive in views from the battlefield area. Route 4A2 follows the same route as 4A1 north east along the foot of the rolling uplands following the grain of the landscape then east through forestry and farmland but turns south east slightly sooner to run parallel to the existing OHL to cross the wooded incised valley of the River Findhorn close to Ardcloch. As with 4A1, the western end of the route risks being perceived as intrusive on the landscape of the wider Culloden battlefield area. <u>Visual</u> Option 4A2 risks being visible from scattered residential properties along most of the route, although there is the potential to pass reasonably wide of them, and forestry would provide some local screening. It would also be visible from both residential and visitor receptors in the Culloden and Clava areas, probably skylined for a short distance. The east end of the route is potentially locally intrusive in views from Ardclach Bell Tower, very intrusive if north of the existing OHL.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Drynachan, Lochindorb and Dava Moors SLA lies approximately 500 m south of the route at the closest point. Whilst the route passes through areas of the same landscape character area as the SLA, it runs close to the line of the existing 275 kV OHL and in the forested lower fringes of these such that is unlikely to compromise the key characteristics of the SLA. Route 4B runs parallel to the existing OHL along the foot of the rolling uplands following the grain of the landscape. The eastern end of the route is wide to allow an alignment south of Saddle Hill to reduce intrusion into the landscape of the Nairn valley at Culloden, and slightly widened at the western end through the Upland Moorland and Forestry and Narrow Wooded Valley LCTs to allow alignments to avoid scattered sensitive visual receptors. <u>Visual</u> Option 4B would affect few residential receptors. It would be visible, although in the context of the existing OHL from both residential and visitor receptors in the Culloden and Clava areas, much less so if an alignment is chosen south of Saddle Hill. The east end of the route is potentially locally intrusive in views from Ardclach Bell Tower.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Drynachan, Lochindorb and Dava Moors SLA lies approximately 500 m south of the route at the closest point and the route stays within 1500 m of the SLA for approximately 6 km in an area where there is no immediately obvious change in the landscape to define the edge of the SLA. An OHL to the south of the route would increase the effect of development on the SLA and may slightly reduce its sense of remoteness. Route 4C also runs parallel to the existing OHL along the foot of the rolling uplands but is wider to allow alignment options well separated from the existing OHL. From the Clunas Reservoir/Carn Maol area it runs more directly east past Highland Boath, through forestry to cross the Findhorn north of Glenferness. <u>Visual</u> Option 4C would affect few, potentially with careful alignment no, residential receptors. It would be visible, although in the context of the existing OHL from both residential and visitor receptors in the Culloden and Clava areas, much less so if an alignment is chosen south of Saddle Hill.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.			

Topic	Route 4A1	Route 4A2	Route 4B	Route 4C
Land Use	Agriculture Route 4A1 begins in lower quality land of Class 4.1 before moving into land of decreasing quality (Classes 6.1 and 5.1) through Assich Forest. It then increases in quality to Class 4.2 through Blackmill Wood. The quality of land increases through Keppernach, where the route moves through Class 3.2 land. There are also patches of Class 3.2 land around the A939, north of Furness. Forestry This route contains 14.99 ha broadleaved woodland, 135.56 ha coniferous woodland and 150.55 ha total woodland. Recreation Route 4A passes through undesignated walking routes in Assich Forest, although it is possible these can be avoided through further routing. NCN Route 1 runs along the north of the route. The area that Route 4A1 passes through may be used in places for commercial highland sports such as fishing, stalking and shooting.	Agriculture This route is identical to Route 4A1 until the town of Keppernach. From here it diverts southwards and avoids the higher quality Class 3.2 land. The route pass through Class 4.1 – 5.3 land. Forestry This route contains 20.11 ha broadleaved woodland, 125.45 ha coniferous woodland and 145.56 ha total woodland. Recreation Route 4A2 passes through undesignated walking routes in Assich Forest, although it's possible these can be avoided through further routing design. NCN Route 1 runs along the north of the route. The area that Route 4A2 passes through may be used in places for commercial highland sports such as fishing, stalking and shooting. This route runs close to Cawdor Clay Pigeon Club and over Achagour Fishery.	Agriculture Route 4B runs south of Route 4A2 and through land ranging from Class 4.1 – 5.3. It then passes through higher quality land of Class 3.2, south of Ferness. Forestry This route contains 18.95 ha broadleaved woodland 125.04 ha coniferous woodland and 143.99 ha total woodland. Recreation Route 4B passes through a number of walking routes, in particular, near Clunas Wood and reservoir, although it's possible these can be avoided through further routing. The are no NCN routes within Route 4B. The area that Route 4AB passes through may be used in places for commercial highland sports such as fishing, stalking and shooting. This route runs close to Cawdor Clay Pigeon Club and over Achagour Fishery.	Agriculture Route 4C runs south of the previous options in Section 4. It begins in land at Class 4.1. The route then runs through a stretch of lower quality land of Class 5.3. This route would impact the patch of higher quality land, south of Ferness which is Class 3.2. Forestry This route contains 11.02 ha broadleaved woodland, 121.74 ha coniferous woodland and 132.76 ha total woodland. Recreation Route 4C passes through a number of walking routes, in particular, near Clunas Reservoir, although it's possible these can be avoided through further routing. The are no NCN routes within Route 4C. The area that Route 4C passes through may be used in places for commercial highland sports such as fishing, stalking and shooting. Clunas Reservoir is a known fishing spot.
Planning	There are proposals known to the planning system in the routes. A permitted application for construction and operation of a sand and gravel quarry can be found north of Redburn. The routes are not expected to impact areas sighted for residential or industrial expansion in the Highland Local Development Plan.	There are proposals known to the planning system in the route, however these are not expected to negatively interact with the route. The route is not expected to impact areas sighted for residential or industrial expansion in the Highland Local Development Plan.	There are proposals known to the planning system in the route, however these are not expected to negatively interact with the route. The route is not expected to impact areas sighted for residential or industrial expansion in the Highland Local Development Plan.	There are proposals known to the planning system in the route, however these are not expected to negatively interact with the route. The route is not expected to impact areas sighted for residential or industrial expansion in the Highland Local Development Plan.
Engineering	Infrastructure Crossings This route includes no major infrastructure crossings. It would include the crossing of 3 A-roads, 1 B road, 6 minor roads, 1 local road and 17 restricted local access roads Environmental Design All of Route 4A1 is below 300 m elevation, which is considered acceptable and constructable. Routes 4A1 and 4A2 both sit within 10 km of inner Moray Firth where air pollution levels are slightly higher. Route 4A1 has low risk from UXO, no landfill or COMAH sites. In addition, this route includes small burn and stream crossings which do not pose a risk to flooding. Ground Conditions Route 4A1 has steeper sections which are challenging, however, are considered feasible to construct.	Infrastructure Crossings This route includes no major infrastructure crossings. It would include the crossing of 1 A-road, 1 B-road, 4 minor roads, 1 local road and 16 restricted local access roads. Environmental Design All of Route 4A2 is below 300 m, which is considered acceptable and constructable. Routes 4A1 and 4A2 both sit within 10 km of inner Moray Firth where air pollution levels are slightly higher. Route 4A2 has low risk from UXO, no landfill or COMAH sites. In addition, this route includes small burn and stream crossings which do not pose a risk to flooding. Ground Conditions Route 4A2 is similar to Route 4A1. However, it has slightly steeper slopes on the approach to the River Findhorn.	Infrastructure Crossings Route 4B crosses a 275 kV OHL (CA1/CU2). It would also include crossing of 1 A-road, 1 B-road, 3 minor roads, 1 local road and 8 restricted local access roads. Environmental Design Routes 4B and 4C have between 1 km and 2 km of the route above 300 m elevation. This is considered more challenging, however still acceptable. Routes 4B and 4C both are on the border of the 10 km mark from the coastal region, however, sit in less a less polluted area. Route 4B has low risk from UXO, no landfill or COMAH sites. In addition, this route includes small burn and stream crossings which do not pose a risk to flooding. Ground Conditions	Infrastructure Crossings Route 4B crosses a 275 kV OHL (CA1/CU2). It would also include the crossing of 1 A-road, 1 B-road, 3 minor roads and 7 restricted local access roads. Environmental Design Routes 4B and 4C have between 1 km and 2 km of the route above 300 m elevation. This is considered more challenging, however still acceptable. Routes 4B and 4C both are on the border of the 10 km mark from the coastal region, however, sit in less a less polluted area. Route 4C has low risk from UXO, no landfill or COMAH sites. In addition, this route includes small burn and stream crossings which do not pose a risk to flooding. Ground Conditions

Topic	Route 4A1	Route 4A2	Route 4B	Route 4C
	Routes 4A1 and 4A2 have small pockets of peatland within them, with the possibility that the alignment avoids these areas. <u>Construction and Maintenance</u> Route 4A1 has no significant access constraints and are close to local access roads and existing tracks. Route 4A1 has a minimal number of angle structures required across the length of this section. <u>Proximity</u> Three residential buildings lie within 170 m of the route. 16 non-residential buildings lie within 170 m of the route. This route has no windfarms, known communications masts, urban areas or metallic pipelines within the route.	Routes 4A1 and 4A2 have small pockets of peatland within them, with the possibility that the alignment avoids these areas. <u>Construction and Maintenance</u> Route 4A2 has no significant access constraints and are close to local access roads and existing tracks. Route 4A2 has slightly more angle structures than Routes 4A1 and 4C in an attempt to remain further away from residential properties. <u>Proximity</u> Seven residential buildings lie within 170 m of the route. 39 non-residential buildings lie within 170 m of the route. This route has no windfarms, known communications masts, urban areas or metallic pipelines within the route.	Route 4B includes slopes and undulated terrain as a challenge, however it is considered feasible. Routes 4B and 4C pass through much larger areas of important peatland. These areas are unlikely to be spannable and require a more challenging construction. <u>Construction and Maintenance</u> Route 4B has slightly less access options close by than Routes 4A1 and 4A2. This is only for small sections so this is not a significant factor. Route 4B has slightly more angle structures than Routes 4A1 and 4C in an attempt to remain further away from residential properties. <u>Proximity</u> There are no residential buildings within 170 m of the route. 13 non-residential buildings lie within 170 m of the route. This route has no windfarms, known communications masts, urban areas or metallic pipelines within the route.	Route 4C is more remote and may pose an issue for construction access. Routes 4B and 4C pass through much larger areas of important peatland. These areas are unlikely to be spannable and require a more challenging construction. <u>Construction and Maintenance</u> Route 4C has limited access from existing tracks so would require construction of temporary access tracks. Route 4C has a minimal number of angle structures required across the length of this section. <u>Proximity</u> There are no residential buildings within 170 m of the route. Five non-residential buildings lie within 170 m of the route. This route has no windfarms, known communications masts, urban areas or metallic pipelines within the route.
Economic	There is very little difference between the capital cost of Route 4A1 and 4A2, with approximately 1% difference in total capital costs. Route 4A1 is slightly longer but this cost is balanced by a reduced requirement for OHL crossings.	This route is the lowest cost option within Section 4.	Although Route 4B is shorter in length than the cheapest option, it has the highest capital cost (roughly 18% higher than the lowest cost). The cost difference is primarily caused by the need to cross an existing 275 kV OHL.	Route 4C has the shortest route length but, similar to Route 4B, it requires a 275 kV OHL crossing, increasing the cost above the lowest cost option.

Table 5-8 shows the RAG ratings for Section 4. Environmentally, Route 4A1 is the least Preferred Route due to being closest to Culloden Battlefield and Culloden Muir, two Category A Listed Buildings, and Darnaway and Lethen Forest SPA, designated for Capercaillie. The 'A' routes risk being skylined in the Culloden and Clava areas, and are generally closer to scattered residential properties along the B9091 in the valley along the River Nairn. Additionally, NCN Route 1 runs to the north of both 'A' routes, which may be visually impacted by the Proposed Development. Both Route 4B and Route 4C score similarly within the RAG ratings, however Route B is marginally preferred overall. Whilst Route 4C is preferable from a Cultural Heritage perspective due to widest scope to avoid indirect impacts on a Category A Listed Building (Ardclach Tower), it is less preferable from a landscape and visual perspective, has the greatest area of irreplaceable peatland habitat, and is less preferable from a protected species perspective due to having more broadleaf woodland and waterbodies than Route 4B. Route 4B benefits from running along the pathways of an existing OHL, so any effects on the landscape are concentrated within one area, rather than spreading them wider.

The engineering preference is Route 4A1. This route remains in lower elevations where terrain is more gradual, with little peatland and a limited number of properties to be avoided. There are some slightly steeper side slopes around Beinn nan Creagan, however it may be possible to avoid these as part of the alignment selection process. Route 4A2 is generally similar to Route 4A1 for the majority of its length, however it splits off to parallel the existing 275 kV OHL south of Achagour. This route option is not considered feasible due to the proximity of numerous properties within this final section. Route 4B is generally acceptable, however poses some challenges due to peatland and some sections of challenging terrain around Carn Mor. This option remains south of the existing 275 kV OHL, offering an opportunity to parallel for a significant section, however it would require passing through approximately 2 km of peatland which Route 4A1 avoids. It is possible to construct within peatland, however this poses further technical challenges and costs. Route 4C is least preferred as it pushes further south into more challenging terrain and areas with less existing access. It does provide more opportunities to avoid properties but offers no real advantage over Routes 4A1 and 4B.

Economically, all route options were classified as 'Green' in the RAG scoring, with cost differentials below the 20% of lowest cost option threshold. As a result, Capital cost is not considered a driver in the option selection for this section. From an Operational cost perspective, Route 4A1 and 4A2 are preferable. Route 4B and 4C are less favourable, incorporating the requirement for cable sealing end inspections and maintenance.

Route 4B is the Preferred Route for Section 4. This route benefits from running parallel to the existing overhead line, so any effects on the landscape are concentrated within one area rather than spreading them wider. Constructability around peat areas remains a concern from the environmental and engineering assessment. However, Route 4B includes a smaller area of peatland than other acceptable options. There was little between options in terms of costs.

Table 5-8 – RAG Rating for Section 4

	Parameter	Sub-Parameter	Section 4 Route Options			
			Option 4A1	Option 4A2	Option 4B	Option 4C
Environment	Natural Heritage	Designations	M	M	M	M
		Protected Species	M	M	M	M
		Habitats	H	H	H	

	Parameter	Sub-Parameter	Section 4 Route Options			
			Option 4A1	Option 4A2	Option 4B	Option 4C
		Ornithology	M	M	M	M
		Geology. Hydrology, Hydrogeology	M	M	M	M
	Cultural Heritage	Designations	L	L	L	L
		Cultural Heritage Assets	H	H	M	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating			
	Landscape and Visual	Designations	L	L	L	L
		Landscape Character	M	M	L/M	L/M
		Visual	M	M	L/M	L/M
	Land Use	Agriculture	L	L	L	L
		Forestry/ Woodland	H	H	H	H
		Recreation	M	M	M	M
	Planning	Proposals	M	L	L	L
Engineering	Infrastructure Crossings	Major Crossings	L	L	M	M
		Road Crossings	H	M	L	L
	Topography	Elevation	L	L	M	M
		Atmospheric pollution	M	M	L	L
		Contaminated land	L	L	L	L
		Flooding	L	L	L	L
	Ground Conditions	Terrain	L	M	M	M
		Peatland	L	L	M	M
	Construction / Maintenance	Access	L	L	M	M
		Angle Towers	L	L	M	L
	Proximity	Clearance distance to buildings	M	M	L	L
		Wind farms	L	L	L	L
		Communication masts	L	L	L	L
		Urban environments	L	L	L	L
		Metallic pipelines	L	L	L	L
Cost	Capital		L	L	L	L
	Operational		L	L	M	M

5.6 Section 5

Table 5-9 shows the analysis of Routes 5A and 5B.

Table 5-9 – Comparative Analysis of Section 5 Routes

Topic	Route 5A	Route 5B
Natural Heritage	<u>Designations</u> There are no designated sites within the route. Designated sites within 10 km include Lower Findhorn Woods SSSI/SAC, Moidach More SAC/SSSI, Darnway and Lethen Forest SPA, and River Spey SAC. Within 20 km there is a designated site for geese - Moray Nairn Coast SPA/Ramsar. Although the proposed route is within foraging range of geese from Moray Nairn Coast SPA/Ramsar (11.5 km north west) there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey potentially associated with this SPA, than there is further west or east.	<u>Designations</u> There are no designated sites within the route. Designated sites within 10 km include Moidach More SAC/SSSI, Lower Findhorn Woods SSSI/SAC, Darnaway and Lethen Forest SPA and River Spey SAC. Within 20 km there is a designated site for geese - Moray Nairn Coast SPA/Ramsar. Although the proposed route is within foraging range of geese from Moray Nairn Coast SPA/Ramsar (11.5 km north west) there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey potentially associated with this SPA, than there is further west or east.

Topic	Route 5A	Route 5B
	Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line that intersects through the route boundary. A Buglife IIA (Findhorn Culbin) is located within the route boundary. Protected Species The habitats and structures within Route 5A have the potential to support roosting, foraging and commuting bats; foraging badgers and sett creation; wildcats, pine marten, red squirrel and reptiles. Aquatic habitats (dependent on type, substrate and obstacles) have the potential to support commuting and foraging otters, water voles, migratory salmonids and lamprey species, but are considered sub-optimal for freshwater pearl mussel. Areas of standing water and slow-flowing field drains are present, which have the potential to support breeding amphibian populations, including great crested newts. The varied habitats within Route 5A have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. Habitats Route 5A largely comprises woodland, peatland habitats, agricultural land and watercourses. Several water bodies are also located within the route. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; • H9180 - Tilio-Acerion forests; and • H91E0 - Alluvial forests. The NWSS identified lowland mixed deciduous woodland, native pinewood and upland birchwood within the route. Of the woodland within the route, 12 areas are listed in the AWI. BNG Two areas of irreplaceable category 1a and 2a ancient woodland are located along the perimeter of the route. This accounts for 0.0008 % of the total route area. The remaining woodlands are not irreplaceable as they are category 2b LEPO woodland and other (Roy map) woodland. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. This represents 7.34 % of the total route area. All areas of peatland are potentially avoideable, although high distinctiveness woodland would be affected in doing so. The total BU for this Route is 4431.9 BU, the lowest total BU of the two options. Ornithology It is considered unlikely that Route 5A would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. Hydrology, Geology and Hydrogeology Route 5A crosses (from west to east) Stripe of Little Lyne, Stripe of Muckle Lyne, Dorback Burn, Burn of Aulthaunachan, River Divie, Berry Burn and Stripe of Knockyfin as well as several unnamed watercourses. The route is underlain by two low productivity aquifers and the Findhorn and Muckle Burn Sand and Gravel (ID: 150812) and Strathnairn, Speyside and Cairngorms (ID: 150709) groundwater bodies. Route 5A is also underlain by the Strathnairn, Speyside and Cairngorms (ID: 150709), Lower Nairn Sand and Gravel (ID: 150791) and Findhorn and Muckle Burn Sand and Gravel (ID: 150812) groundwater bodies.	Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line that intersects through the route boundary. Protected Species The habitats and their suitability to support protected species within Route 5B are largely reflective of those within Route 5A, with the following exceptions: • A lesser proportion of coniferous woodland is present in Route 5B, which decreases the habitat's suitability for red squirrels and is overall sub-optimal for pine martens. • A slightly larger area broadleaf woodland is present in this Route, which increases the habitat's roosting suitability for bat species. • The coniferous woodlands in Route 5B are smaller in size and less well connected than in Route 5A, making the Route sub-optimal for wildcats. • A larger area of scrub and tussocky grassland habitat is present, increasing the suitability for reptile species. • Route 5B does not contain a network of waterbodies within 500 m of each other. This reduces the habitat's breeding suitability for great crested newts. • A lesser number of standalone waterbodies are present which decreases the habitat's suitability for amphibians. Habitats Route 5B comprises similar habitats to Route 5A. HABMOS data identifies the following Annex I habitats within the Route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; and • H91E0 - Alluvial forests. The NWSS identified native pinewood, upland birchwood and wet woodland within the route. Of the woodland within the route, 15 areas are listed in the AWI. BNG Two irreplaceable woodlands listed on the AWI as category 2a ancient woodland of semi-natural origin make up 0.41 % of the route, and category 2b LEPO woodland and Roy woodland are scattered throughout the option. They are not irreplaceable but have high distinctiveness and should be avoided where possible. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. This represents 23.91 % of the total route area, a significant coverage. Much of this is avoidable, however some swathes span the entire route. The total BU for this Route is 7070.10 BU, the highest total BU of the two options. Ornithology It is considered unlikely that Route 5B would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. Hydrology, Geology and Hydrogeology Route 5B crosses (from west to east): Stripe of Little Lyne, Stripe of Muckle Lyne, Dorback Burn, Knockach Burn, Burn of Aulthaunachan, River Divie, Stripe of Craigroy, Berry Burn, Reenlarig Burn and Stripe of Corshellach as well as several unnamed watercourses.

Topic	Route 5A	Route 5B
	There are no DWPA within the route, however there are PWS according to Moray Council Open Map data[10].	There are no DWPA within the route, however there are PWS according to Moray Council Open Map data.
Cultural Heritage	Designations There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. Within the route, there are 14 undesignated assets dispersed across the length, with the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There are three Listed Buildings (1 Category A, 1 Category B, 1 Category C) within the route. These are all located within the central portion of the route at River Divie. Edinkillie House (LB2188), Category A, and Edinkillie Railway Viaduct (LB2189), Category B, are both located at the northern periphery of the route. Edinkillie Bantrach Bridge (LB2186) is located at the southern periphery of the route. There is the potential for direct and indirect impacts on these assets.	Designations There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There are also none in proximity which are likely to experience any indirect impacts. Within the route, there are 31 undesignated assets dispersed across the length, with the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There is a single Category C Listed Buildings within proximity of the route. Bridge of Knocklach (LB2161) and there is the potential for indirect impacts on this asset.
Landscape and Visual	Designations and Character There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. However, Route 5A crosses the southern tip of the Findhorn Valley and the Wooded Estates SLA[11] and, whilst it would have a limited effect on the character of the SLA overall, it would affect the landscape setting of Edinkillie Church which is specifically referenced in the Statement of Importance for the SLA. Route 5A runs slightly north of east through a mixture of moorland and forestry (Open Rolling Upland, LCT 291) then across the Dorback Burn to cross the valley of the River Divie at Beachans, through an attractive pocket of landscape where would be intrusive around Glenernie Church and the Divie Viaduct, a tongue of the Narrow Wooded Valley - Moray & Nairn LCT (286). It then follows the line of the existing OHL back into an area of Upland Moorland and Forestry (LCT 290). Visual Option 5A risks being closely visible to a small number of residential receptors and to users of the A940 where it crosses the Dorback Burn, and it would be very closely visible and intrusive in views from Glenernie Church, the Dava Way and residential receptors at Beachans where it crosses the River Divie.	Designations and Character There are no National Parks, National Scenic Areas or Wild Land Areas close to Route 5B and it passes south of the Findhorn Valley and the Wooded Estates SLA, beyond the line of the existing OHL. Topography and intervening vegetation are likely to limit the effects of a potential alignment along this route in the SLA. Route 5B runs east across grouse moor (Open Rolling Upland, LCT 291) to cross the broad valley of the Dorback Burn north of Braemory Lodge. It climbs over the rounded hill of Cairn Eney, with the potential for an alignment closely paralleling the existing OHL then across the valley of the River Divie south of Dallasbraughty, then turns north following the line of the existing OHL back into an area of Upland Moorland and Forestry (LCT 290). Visual Option 5B would be visible to users of the A940 where it crosses the Dorback Burn, and from the Dava Way over the shoulder of Cairn Eney but appears to offer the potential to avoid passing close to residential receptors.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.	
Land Use	Agriculture Route 5A begins in an area with land classified as 4.2 and 3.2. Moving east, the route passes through more land of Class 3.2. There is the potential to avoid this at alignment stage. The land quality decreases to Class 4.2 as the route moves through Bantrach and Beachens Woods. Then the quality decreases further as the route moves through Class 6.1 land through the Wood of Regaule. Forestry This route contains 4.10 ha broadleaved woodland, 42.87 ha coniferous woodland and 46.97 ha total woodland. Recreation Route 5A pass through a long distance walking route (Dava Way) near Beachans. There is also a core path in the area which is crossed by the route. There are no NCN routes within Route 5A. The area that Route 5A passes through may be used in places for commercial highland sports, especially fishing on the River Divie.	Agriculture Route 5B begins in land of Class 3.2 before moving through Class 6.1 and then to Class 5.1 near the A940. Then it moves through higher quality Class 3.1 land, east of Bantrach Wood. Route 5B then moves through land of decreasing quality (Class 6.2 and 6.3) before crossing the River Divie and joining with Route 5A. Forestry This route contains 0.72 ha broadleaved woodland, 6.2 ha coniferous woodland and 6.92 ha total woodland. Recreation Route 5B pass through a long distance walking route (Dava Way) near Beachans. There is also a core path in the area which is crossed by the route. There are no NCN Routes within Route 5B. The area that Route 5B passes through may be used in places for commercial highland sports, especially fishing on the River Divie.

[10] Moray Council (2019) Private Water Supplies – GIS [online]. Available at: https://www.arcgis.com/apps/mapviewer/index.html?layers=0e11645746e447f2b8dafabe750f24f2 [Accessed: January 2023]

[11] http://www.moray.gov.uk/downloads/file121583.pdf

Topic	Route 5A	Route 5B
Planning	There are a number of significant proposals in both the Highland Council and Moray Council planning systems that interact with both routes. An application for Cairn Duhie Wind Farm lies in the west of Section 5 at the beginning of both route options. The application boundary lies to the east of Route 5A, however it spans Route 5B. It is currently going through public inquiry with the Planning and Environmental Appeals Division (DPEA) of the Scottish Government. In the east of Section 5 lies the consented Clash Gour Wind Farm, which spans the width of both route options and the associated s37 application for Clash Gour connection to the adjacent 275 kV OHL. In addition, a new 2023 application for development of a battery storage energy system has been submitted, which lies within both route options near Dallasbraughty.	
Engineering	<u>Infrastructure Crossings</u> There are no major crossings in Route 5A. It does have a number of road crossings including one A-road, one minor road, and three restricted local access roads. <u>Environmental Design</u> Route 5A mostly passes through elevations lower than 300 m, with a small section of 184 m extending into elevations above 300 m around the hill of Glaschyle. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is low risk from UXO, and there are no landfill or COMAH sites. <u>Ground Conditions</u> The terrain in Route 5A is considered constructable. Route 5A has a small area of Class 1 peatland within it however this can easily be avoided through the alignment process. <u>Construction and Maintenance</u> Access is not a concern within Route 5A. Route 5A does not have significant angle changes and require excessive numbers of angle towers. <u>Proximity</u> There are no residential buildings within 170 m of the route. Four non-residential buildings lie within 170 m of the route. Route 5A is constrained by the existing Hill of Glaschyle Wind Farm. This wind farm consists of 12 turbines with a rotor diameter of 71 m. The route in this area has been adjusted where possible to avoid these turbines. Route 5A has no known communication masts, metallic pipelines and urban environments.	<u>Infrastructure Crossings</u> There are no major crossings in Route 5B currently, however there is a proposed wind farm connection to Clash Gour that is proposed to connect into the existing 275 kV OHL, which would constrain this route. There are a number of road crossings including one A-road, one minor road, and two restricted local access roads. <u>Environmental Design</u> Route 5B is entirely under 300 m elevation. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is low risk from UXO, and there are no landfill or COMAH sites. There is also a low flooding risk. <u>Ground Conditions</u> The terrain in Route 5B is considered constructable. Route 5B has several larger areas denoted as Class 1 peatland with estimated depths above 1.5 m in areas. It would not be possible to totally avoid the peatland in this area. Several towers would likely need placed into the peatland causing damage to the habitat and would likely require more expensive construction methods to gain access and erect the structures. <u>Construction and Maintenance</u> Access across Route 5B is mostly fine, however there is limited access within the middle of the route. Route 5B requires additional angle towers compared with Route 5A, however the number of angles required could potentially be minimised by modifying the Clash Gour Wind Farm connection. <u>Proximity</u> One residential building passes within 170 m of the route. 19 non-residential buildings lie within 170 m of the route. Route 5B is significantly constrained by wind farms due to the proposed Cairn Duhie Wind Farm, which is currently going through public inquiry with the DPEA. The proposed wind farm comprises 16 turbines with a rotor diameter of 117 m and it is understood will be connected through the distribution network. These turbine buffers encroach upon Route 5B, leaving insufficient space for the 400 kV OHL to fit between the existing 275 kV OHL and these turbine buffers. To allow this route to be feasible either a section of the existing 275 kV OHL would need to be undergrounded or the 275 kV could be realigned and situated further north to make space for the proposed 400 kV OHL. Route 5A has no known communication masts, metallic pipelines and urban environments.
Economic	This is the lowest cost option for Section 5.	Route 5B is significantly more expensive than Section 5A, roughly 70% higher. A significant factor in this increase is the need to cross existing 275 kV OHLs. The increased length of the route (and associated towers, conductor and access road requirements) is also a contributing factor to the increase in cost. The additional towers for route 5B are more costly tension towers (rather than suspension) due to the changes in direction required by the route to avoid constraints.

Table 5-10 shows the RAG Ratings for Section 5. Within Section 5, there is no environmentally Preferred Route. Whilst Route 5A is slightly preferred from a Natural Heritage Designations, Protected Species and Habitats perspective, it is very constrained at a pinch point near Edinkillie House and Church, the Dava Way, and the Divie Viaduct. Here, there is potential for significant Landscape and Visual impacts for these receptors, as well as Cultural Heritage settings impacts on both Edinkillie House, which is a Category A Listed Building, and the Divie Viaduct, which is a Category B Listed Building. Both routes are also considerably constrained by wind farm planning applications at both end of the routes.

Route 5B is preferable from both a Landscape and Visual, and Cultural Heritage perspective, however it has large areas of irreplaceable peatland, which are not over-sailable in some sections of the route.

Form an engineering perspective, within Section 5 and onwards significant numbers of proposed, consented and operational wind farms are present within the southern portion of the Proposed Corridor, severely constraining the routes in numerous areas. Route 5A is considered the Preferred Route in this section as it sits north of the existing 275 kV OHL and provides a relatively clear route that avoids the wind farms in the area. It does however sit closer to properties compared to Route 5B, but technically is considered acceptable. The only significant challenge with Route 5A is around Glenernie, where there would need to be a crossing near the Divie Railway Viaduct. This location is constrained due to surrounding properties making a crossing in this location challenging but workable.

Route 5B poses significant challenges at both the start and end of the route. At the western end there is the proposed Cairn Duhie Wind Farm that is currently going through public inquiry with the DPEA. The proposed turbines are positioned so that the three rotor diameter buffer sits directly against the existing 275 kV OHL, leaving no room for a further OHL to the south of the existing OHL. The wind farm is planned to connect through a distribution connection and therefore will not connect into the 275 kV OHL. To make a route work in this location, either a section of the existing 275 kV OHL would need to be undergrounded, or there is an option to realign the 275 kV OHL to make space for the new 400 kV OHL to sit to the south. This increases the complexity of construction within this area and also increases the cost.

In addition to the wind farm at the western end of Route 5B, there is a further consented wind farm (Clash Gour) at the eastern end of the route that has been approved by the Scottish Government. The proposed connection arrangement is for a substation to be located between the turbine buffer and the existing 275 kV OHL, with the existing OHL to be turned in and out of the new substation via a separate s37 application for connection. This in effect blocks off the only space to pass through to the south of the existing 275kV OHL and north of the proposed wind turbines. It would be possible to adjust the connection arrangement in this location, either by relocating the substation to the other side of the OHL, or by cabling the 275 kV OHL in and out of the proposed substation to allow for the 400 kV OHL to pass through. Again, this poses a significant amount of work to alter this connection and increases the cost due to the use of cable if required.

From a Capital cost perspective, Route 5A is preferred for Section 5.

Route 5B has been chosen as the Preferred Route for Section 5. Route 5A is constrained by landscape, visual, and heritage issues around Edinkillie House and Church and the Divie railway viaduct. These constraints are considered to outweigh the cost preference for Route 5A. Alignment challenges remain within Route 5B from the existing wind farm constraints and peatland habitat, although these are considered workable.

Table 5-10 – RAG Rating for Section 5

	Parameter	Sub-Parameter	Section 5 Route Options	
			Option 5A	Option 5B
Environment	Natural Heritage	Designations	L	L
		Protected Species	M	M
		Habitats	H	H
		Ornithology	L	L
		Geology. Hydrology, Hydrogeology	M	M
	Cultural Heritage	Designations	L	L
		Cultural Heritage Assets	H	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating	
	Landscape and Visual	Designations	M/H	L
		Landscape Character	M	L/M
		Visual	M	L/M
	Land Use	Agriculture	L	L
		Forestry/ Woodland	H	H
		Recreation	M	M
	Planning	Proposals	H	H
Engineering	Infrastructure Crossings	Major Crossings	L	M
		Road Crossings	L	L
	Topography	Elevation	L	L
		Atmospheric pollution	L	L
		Contaminated land	L	L
		Flooding	L	L
	Ground Conditions	Terrain	L	L

	Parameter	Sub-Parameter	Section 5 Route Options	
			Option 5A	Option 5B
		Peatland	L	M
	Construction / Maintenance	Access	L	M
		Angle Towers	L	M
	Proximity	Clearance distance to buildings	L	M
		Wind farms	M	H
		Communication masts	L	L
		Urban environments	L	L
		Metallic pipelines	L	L
Cost	Capital		L	H
	Operational		L	H

5.7 Section 6

Table 5-11 shows the comparative analysis of Routes 6A1, 6A2 6B and 6C.

Table 5-11 Comparative Analysis of Section 6 Routes

Topic	Route 6A1	Route 6A2	Route 6B	Route 6C
Natural Heritage	Designations There are no designated sites withing the route. Designated sites within 10 km of the route include Kellas Oakwood SSSI, Letherhill SSSI, Lower Findhorn Woods SAC/SSSI, Darnaway and Lethen Forest SPA, Buinach and Glenlatterach SSSI, Moidach More SAC/SSSI, Gull Nest SSSI, Quarry Wood SSSI, Moray and Nairn Coast SPA/Ramsar, River Spey SAC, Culbin Sands, Culbin Forest and Findhorn Bay SSSI and Coleburn Pasture SSSI. Although the proposed routes are within foraging range of geese from Moray Nairn Coast SPA/Ramsar, there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey than there is further west or east. No non-statutory designations or nature conservation sites are present within a 2 km of the route. Protected Species The habitats within Route 6A1 have suitability to support roosting, foraging and commuting bats; foraging badgers and sett creation, wildcats, pine marten, reptiles and red squirrel. Aquatic habitats (dependent on type, substrate and obstacles) have the potential to support commuting and foraging otters, water voles, migratory salmonids and lamprey species, but are considered sub-optimal for freshwater pearl mussel. Areas of standing water and slow-flowing field drains are present, which have the potential to support breeding amphibian populations.	Designations Kellas Oakwood SSSI is within Route 6A2, however there is option to avoid this site. Designated sites within 10 km of the route include Letherhill SSSI, Lower Findhorn Woods SAC/SSSI, Darnaway and Lethen Forest SPA, Buinach and Glenlatterach SSSI, Moidach More SAC/SSSI, Gull Nest SSSI, Quarry Wood SSSI, Moray and Nairn Coast SPA/Ramsar, River Spey SAC, Culbin Sands, Culbin Forest and Findhorn Bay SSSI and Coleburn Pasture SSSI. Although the proposed routes are within foraging range of geese from Moray Nairn Coast SPA/Ramsar, there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey than there is further west or east. No non-statutory designations or nature conservation sites are present within a 2 km of the route. Protected Species The habitats and their suitability to support protected species within Route 6A2 are largely reflective of those within Route 6A1, with the following exceptions: • A larger proportion of mature broadleaf woodland is present in Route 6A2, largely limited to either side of the River Lossie in the eastern portion of the route. This increases the habitat's roosting suitability for bat species.	Designations Kellas Oakwood SSSI is within Route 6A2, however there is option to avoid this site. Designated sites within 10 km of the route include Buinach and Glenlatterach SSSI, Gull Nest SSSI, Lower Findhorn Woods SAC/SSSI, Darnaway and Lethen Forest SPA, Moidach More SAC/SSSI, Letherhill SSSI, Coleburn Pasture SSSI, Moray and Nairn Coast SPA/Ramsar, River Spey SAC, Burn of Ballintomb SSSI, Quarry Wood SSSI, Culbin Sands, Culbin Forest and Findhorn Bay and River Spey SSSI. Although the proposed routes are within foraging range of geese from Moray Nairn Coast SPA/Ramsar, there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey than there is further west or east. No non-statutory designations or nature conservation sites are present within a 2 km of the route. Protected Species The habitats and their suitability to support protected species within Route 6B are largely reflective of those within Route 6A1, with the following exceptions: • A larger proportion of mature broadleaf woodland is present in Route 6B, largely limited to either side of the River Lossie in the central and eastern portions of the route. This increases the habitat's roosting suitability for bat species. Further broadleaf trees are morse sparsely	Designations Kellas Oakwood SSSI is within Route 6A2, however there is option to avoid this site. Designated sites within 10 km of the route include Buinach and Glenlatterach SSSI, Gull Nest SSSI, Darnaway and Lethen Forest SPA, Lower Findhorn Woods SAC/SSSI, Moidach More SAC/SSSI, Lettenhill SSSI, Coleburn Pasture SSSI, River Spey SAC, Quarry Wood SSSI, River Spey SSSI and Burn of Ballintomb SSSI. Although the proposed routes are within foraging range of geese from Moray Nairn Coast SPA/Ramsar, there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey than there is further west or east. No non-statutory designations or nature conservation sites are present within a 2 km of the route. Protected Species The habitats and their suitability to support protected species within Route 6C are largely reflective of those within Route 6A1, with the following exceptions: • A quantity of mature broadleaf trees are present in route 6C, which decreases the habitat's roosting suitability for bat species. • A larger area of scrub and tussocky grassland habitat is present, increasing the suitability for reptile species.

Topic	Route 6A1	Route 6A2	Route 6B	Route 6C
	The varied habitats within Route 6A1 have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. Habitats The route largely comprises woodland, peatland habitats, agricultural land and watercourses. Several water bodies are also located within the Route including Romach Reservoir. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; • H9180 - Tilio-Acerion forests; and • H91E0 - Alluvial forests. The NWSS identified lowland mixed deciduous, native pinewood, upland birchwood and wet woodland within the route. Of the woodland within the route, ten areas are listed in the AWI. The NWSS also identified small parcels fen, marsh and swamp within the route. BNG One of the ten AWI woodlands, a category 1a ancient woodland of semi-natural origin, is considered irreplaceable. The remaining category 2b AWI locations are not considered irreplaceable habitat but have high distinctiveness and should therefore be avoided where possible. Areas of Class 1 and Class 2 peat are scattered throughout the Route and considered irreplaceable habitat. This represents 2.63 % of the total route area. This could all be avoidable through careful alignment selection. The total BU for this route is 8698.49 BU, the second highest total BU of the four options. Ornithology It is considered unlikely that it would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. Hydrology, Geology and Hydrogeology Route 6A1 passes a number of watercourses including Burn of Auldusack, Altyre Burn, Stripe of Sleughwhite, Romach Burn, Black Burn, Burn of Alltmafourack, Goat Burn, Stripe of Carsinshellach, Doual Burn and Cowies Burn as well as several unnamed watercourses. Several water bodies are also located within the route including Romach Reservoir.	• A network of waterbodies within 500 m of each other is present close to the eastern end of the route. This increases the habitat's breeding suitability for great crested newts. • The River Lossie is an additional large watercourse in Route 6A2, which crosses the boundary at one location, in the eastern portion of the route. This increases the route's potential to support migratory salmonids. Habitats The route largely comprises woodland, peatland habitats, agricultural land and watercourses. HABMOS data identifies the same Annex I habitats as Route 6A1 within the route. The NWSS identified lowland mixed deciduous, native pinewood, upland birchwood, upland oakwood and wet woodland within the route. Of the woodland within the route, ten areas are listed in the AWI. BNG One of the AWI locations, a small parcel of category 1a ancient woodland, is considered irreplaceable, the remaining AWI woodlands are not irreplaceable but have high distinctiveness and should therefore be avoided where possible. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. This represents 3.17 % of the total route area. This could all be avoidable through careful alignment selection. The total BU for this route is 8971.51 BU, the highest total BU of the four options. Ornithology It is considered unlikely that it would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. Hydrology, Geology and Hydrogeology Route 6A2 passes a number of watercourses including Burn of Auldusack, Altyre Burn, Stripe of Sleughwhite, Romach Burn, Black Burn, Burn of Alltmafourack, Goat Burn, Stripe of Carsinshellach, Doual Burn River Lossie, Black Stripe, Burn of Clashdon, Snaosean Stripe and Burn of Carnicol as well as several unnamed watercourses. Several water bodies are also located within the route including Romach Reservoir. Route 6A2 is underlain by the Grampian Group low productivity aquifer and Upper Old Red Sandstone moderately productive multi-layered. It is also underlain by the Strathnairn, Speyside and	scattered across the moorlands in the eastern half of the route, although these include younger, self-seeded specimens which present lower potential roosting value. • A lesser proportion of coniferous woodland is present in Route 6B, which decreases the habitat's suitability for red squirrels and is overall sub-optimal for pine martens. • The suitability of the coniferous woodlands for wildcats is more limited to the large grouping in the western extent of the route. • A larger area of scrub and tussocky grassland habitat is present, increasing the suitability for reptile species. • A greater number of standalone waterbodies are present which increases the habitat's suitability for amphibians. • A network of waterbodies within 500 m of each other is present close to the eastern end of the route. This increases the habitat's breeding suitability for great crested newts. • The River Lossie is the largest watercourse in Route 6B, which crosses the boundary at two locations. This has greater potential to support migratory salmonids than those within Route 6A1. Habitats The route largely comprises woodland, peatland habitats, agricultural land and watercourses. Several water bodies are also located within the route. HABMOS data identifies the same Annex I habitats as Route 6A1 within the route with the exception of Alluvial forests. The NWSS identified lowland mixed deciduous, native pinewood, upland oakwood, upland birchwood and wet woodland within the route. Of the woodland within the route, three areas are listed in the AWI. BNG A single area of irreplaceable ancient woodland (category 1a ancient woodland of semi-natural origin) is located along the northern perimeter of the route. The remaining woodlands are category 2b LEPO woodlands, and not considered irreplaceable habitat. It should be possible to avoid the area of irreplaceable AWI, making up 0.006 % of the total route, on the northern boundary of this route. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. This presents 12.49	• A greater number of standalone waterbodies are present which increases the habitat's suitability for amphibians. • A network of waterbodies within 500 m of each other is present close to the eastern end of the route. This increases the habitat's breeding suitability for great crested newts. • The River Lossie is the largest watercourse in Route 6C and has greater potential to support migratory salmonids than those within Route 6A1. Habitats The route largely comprises woodland, peatland habitats, agricultural land and watercourses. HABMOS data identifies the same Annex I habitats in Route 6C as Route 6B. The NWSS identified native pinewood, upland oakwood and upland birchwood within the route. Of the woodland within the route, three areas are listed in the AWI. The NWSS also identified a small parcel of bog at the northern edge of the route. BNG The single irreplaceable AWI location along the route's southern boundary represents 0.004 % of the total route area. The remaining woodland is category 2b LEPO woodland and other (Roy) woodland, and hence not considered irreplaceable. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. These represent 19.96 % of the total route area and are largely avoidable, with the exception of some swathes that span the entire route width. The total BU for this route is 6738.25 BU, the second lowest total BU of the four options. Ornithology It is considered unlikely that it would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. Hydrology, Geology and Hydrogeology Route 6C crosses a number of watercourses including Souters Stripe, Lone Burn, Cachy Du, Stripe of Ribreck, River Lossie, Cach-na-Keist, Burn of Yellowbog, Burn of Anargate, Burn of Lochans, Burn of Tipochs, Cold Burn, Shean Buen, Back Stripe, Stripe of Bodenriach, Snaosean Stripe, Burn of Carnicol and Allt

Topic	Route 6A1	Route 6A2	Route 6B	Route 6C
	Route 6A1 is underlain by the Grampian Group low productivity aquifer and Upper Old Red Sandstone moderately productive multi-layered aquifer. It is also underlain by the Strathnairn, Speyside and Cairngorms (ID: 150709), Findhorn Coastal (ID: 150808), Lossiemouth Coastal (ID: 150813), and Upper Lossie Sand and Gravel (ID: 150765) groundwater bodies. Route 6A1 is not located within any DWPA. According to Moray Council Open Map data there are PWS within Route 6A1.	Cairngorms (ID: 150709), Findhorn Coastal (ID: 150808), Lossiemouth Coastal (ID: 150813), and Upper Lossie Sand and Gravel (ID: 150765) groundwater bodies. A small area in the east of Route 6A2 is located within the catchment of Leanoch Burn and Glenlatterach reservoir, which is designated as a SEPA DWPA for surface water. A small part in the east of Route 6A2 is located within the abstraction SW DWPA of Glenlatterach reservoir and supplies Glenlatterach Water Treatment Works (WTW). According to Moray Council Open Map data there are PWS within Route 6A2.	% of the total route area and is likely unavoidable given its extent. The total BU for this route is 3997.88 BU, the lowest total BU of the four options. <u>Ornithology</u> It is considered unlikely that it would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 6B crosses a number of watercourses including Romach Burn, Goat Burn, Stripe of Tomdugard, Burn of Auchness, River Lossie, Black Stripe, Burn of Clashdon, Snaosean Stripe and Burn of Carnicol as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 6B is underlain by the Grampian Group low productivity aquifer. It is also underlain by the Strathnairn, Speyside and Cairngorms (ID: 150709), and Upper Lossie Sand and Gravel (ID: 150765) groundwater bodies. A small area in the east of the Route 6B is located within the catchment of Leanoch Burn and the catchment of Glenlatterach reservoir, which is designated as a SEPA DWPA for surface water. A small part in the east of Route 6B is located within the abstraction SW DWPA of Glenlatterach reservoir and supplies Glenlatterach Water Treatment Works (WTW). According to Moray Council Open Map data there are PWS within Route 6B.	Creach as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 6C is underlain by the Grampian Group low productivity aquifer. It is also underlain by the Strathnairn, Speyside and Cairngorms (ID: 150709), and Upper Lossie Sand and Gravel (ID: 150765) groundwater bodies. A small area in the east of the Route 6C is located within the catchment of Leanoch Burn and catchment of Glenlatterach reservoir, which is designated as a SEPA DWPA for surface water. Route 6C is located within the abstraction SW DWPA of Glenlatterach reservoir and supplies Glenlatterach Water Treatment Works (WTW). Route 6C is located within a SEPA DWPA for surface water. According to Moray Council Open Map data there are PWS within Route 6C.
Cultural Heritage	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. The closest Scheduled Monument is located in the village of Dallas, Dallas Market Cross (SM2206). Due to intervening topography and its current location in the churchyard indirect impacts are unlikely. Within the route, there are 19 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. The closest Scheduled Monument is located in the village of Dallas, Dallas Market Cross (SM2206). Due to intervening topography and its current location in the churchyard indirect impacts are unlikely. Within the route, there are 29 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> The Cultural Heritage assets appraisal for Route 6A1 is also applicable for Route 6A2.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. The closest Scheduled Monument is located in the village of Dallas, Dallas Market Cross (SM2206). Due to intervening topography and its current location in the churchyard indirect impacts are unlikely. Within the route, there are 32 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. Within the route, there are 21 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> The Cultural Heritage assets appraisal for Route 6B is also applicable for Route 6C.

Topic	Route 6A1	Route 6A2	Route 6B	Route 6C
	There is a single Category B Listed Building, Cots of Rhininver (LB2341) within the central portion of the route. There is the potential for direct and indirect impacts on this asset. There are additional Listed Buildings located within proximity of the route where there is potential for indirect impacts. Dallas Lodge and Gatepiers (LB2338), Category B and Dallas War Memorial (LB2344), Category B.		There are no Cultural Heritage assets within proximity of the route. No indirect impacts are anticipated.	
Landscape and Visual	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. The eastern end of the route runs through the Pluscarden Valley SLA, which is designated partly as the enclosed setting of Pluscarden Abbey, with limited potential to develop alignments outside the SLA boundary. Route 6A1 runs north east through Rolling Farmland and Forests - Moray & Nairn LCT 285, a patchwork of farmland and forestry, weaving around Romach Hill and Hill of Mulundy providing opportunities for an alignment conforming to Holford Rules 4 & 5, past Dallas and north of the Hill of the Wangie to run high on the south side of the Pluscarden valley. Any alignment through the Pluscarden valley risks being intrusive in this isolated pocket of very attractive landscape. <u>Visual</u> Route 6A1 risks affecting relatively few scattered residential receptors in the rural areas but passes close to the north of the village of Dallas. An existing 275 kV OHL passes immediately to the south of the village. The eastern end of the route risks being skylined in views from the Pluscarden valley, including from Pluscarden Abbey.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Pluscarden Valley SLA lies very close to the north of the eastern end of the route but as Route 6A2 runs on the south side of the Hill of Wangie there is limited risk of intervisibility**.** Route 6A2 follows Route 6A1, weaving around Romach Hill and Hill of Mulundy, past Dallas then south of the Hill of the Wangie through the valley of the Lossie, where it would be very intrusive in an attractive area, albeit one already affected by the existing OHL. <u>Visual</u> Route 6A2 risks affecting relatively few scattered residential receptors in the rural areas, except in the valley of the River Lossie, just east of Dallas, but it passes close to the north of the village of Dallas then wraps round to the east. An existing 275 kV OHL passes immediately to the south of the village.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Pluscarden Valley SLA lies close to the north of the eastern end of the route but as Route 6B passes south of the Hill of Wangie there is very limited risk of intervisibility**.** Route 6B runs parallel to the existing OHL across Upland Moorland and Forestry (LCT 290) to Rhinagoup, then turns south through Rolling Farmland and Forests - Moray & Nairn (LCT 285) to cross the River Lossie in an area where the valley opens up to form an attractive bowl around Tomcork where, depending on alignment an OHL may be quite intrusive. It then turns north, along the transition between the upland moorland and the rolling farmland above the valley of the Lossie. <u>Visual</u> The eastern and western thirds of Route 6B risk affecting no, or very few, sensitive receptors. The central third would likely pass close to residential receptors at Rhinagoup, south west of Dallas, where there is a locally dense scatter of residential properties and smallholdings, and where it crosses the valley of the River Lossie.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Pluscarden Valley SLA lies to the north of the eastern end of the route but as Route 6C passes well south of the Hill of Wangie it is very unlikely to be visible**.** Route 6C runs east across Upland Moorland and Forestry (LCT290) through forestry and moorland, passing south of the settled farming land at Tomcork and Ballachraggan then north over the hill of Mill Buie. <u>Visual</u> Route 6C runs wide south of most sensitive receptors through an area of forestry and moorland with very few residential properties and no obvious signs of recreational activity.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.			
Land Use	<u>Agriculture</u> Route 6A1 begins east of Tomnamoon in land Class 4.1. The land quality increases to Class 3.2 as it moves northwards around the Newtyle Forest. The quality then decreases to 5.1 and 4.2. The route ends at Wangie Wood where the land is Class 5.1. <u>Forestry</u> This route includes 2.47 ha broadleaved woodland, 82.58 ha coniferous woodland and 85.05 ha total woodland. <u>Recreation</u>	<u>Agriculture</u> Route 6A2 is the same as Route 6A1 until the B9010. From here it follows the route of the River Lossie. The land classes are also Class 4.2 and Class 5.1 where the route differs. <u>Forestry</u> This route includes 2.47 ha broadleaved woodland, 54.93 ha coniferous woodland and 57.4 ha total woodland. <u>Recreation</u> Route 6A2 passes through a number of undesignated walking routes, in particular near Romach Reservoir, Romach Hill and Wangie Hill. There are no core paths or NCN routes impacted.	<u>Agriculture</u> Route 6B begins east of Tomnamoon, in land of agricultural quality Class 4.1. It then passes through areas of lower quality land (Class 6.1 and 5.1) before again running through Class 4.2 land near the River Lossie and Craigroy. The land quality then decreases as the route runs though Class 5.1 land before moving back up to Class 4.1 near the B9010. <u>Forestry</u> This route includes 2.33 ha broadleaved woodland, 66.56 ha coniferous woodland and 68.89 ha total woodland. <u>Recreation</u>	<u>Agriculture</u> Route 6C begins east of Tomnamoon in land of agricultural quality Class 4.1. It then passes through areas of lower quality land (Class 6.1 and 5.1). <u>Forestry</u> This route includes 0 ha broadleaved woodland, 101.98 ha coniferous woodland and 101.98 ha total woodland. <u>Recreation</u> There are no core paths or NCN routes impacted by Route 6C.

Topic	Route 6A1	Route 6A2	Route 6B	Route 6C
	Route 6A1 passes through a number of undesignated walking routes, in particular near Romach Reservoir and Romach Hill. There are no core paths, long distance routes or NCN routes impacted. The area that Route 6A1 passes through may be used in places for commercial highland sports, especially fishing at Romach Loch.	The area that Route 6A2 passes through may be used in places for commercial highland sports, especially fishing at Romach Loch.	Route 6B passes through a number of undesignated walking routes, in particular the Hillockhead Plantation. There are no core paths or NCN routes impacted. The area that Route 6B passes through may be used in places for commercial highland sports, especially fishing on the River Lossie.	The area that Route 6C passes through may be used in places for commercial highland sports, especially fishing on the River Lossie.
Planning	This route is not expected to impact areas sighted for residential or industrial expansion in the Moray Local Development Plan. There are proposals known to the planning system in the route and many of these are not expected to negatively interact with the route. However, at the western end of Route 6A1 lies an application for the consented Clash Gour Wind Farm. In addition, a new 2023 application for development of a battery storage energy system has been submitted, which lies at the eastern end of the route option near Dallasbraughty.	This route is not expected to impact areas sighted for residential or industrial expansion in the Moray Local Development Plan. There are proposals known to the planning system in the route and many of these are not expected to negatively interact with the route. However, at the western end of Route 6A2 lies an application boundary for the consented Clash Gour Wind Farm. In the eastern end of the route lies the application boundary for the consented Meikle Hill Wind Farm. In addition, a new 2023 application for development of a battery storage energy system has been submitted, which lies at the eastern end of the route option near Dallasbraughty.	This route is not expected to impact areas sighted for residential or industrial expansion in the Moray Local Development Plan. There are proposals known to the planning system in the route and many of these are not expected to negatively interact with the route. However, at the western end of Route 6B lies an application boundary for the consented Clash Gour Wind Farm. In the eastern end of the route lies the application boundary for the consented Meikle Hill Wind Farm. There are a couple of approved applications associated with 'Falcon Flying Aviaries' to the east of Craigroy within Route 6B. There are also approved applications for tourist accommodation around Craigroy. In addition, a new 2023 application for development of a battery storage energy system has been submitted, which lies at the eastern end of the route option near Dallasbraughty.	This route is not expected to impact areas sighted for residential or industrial expansion in the Moray Local Development Plan. There are proposals known to the planning system in the route and many of these are not expected to negatively interact with the route. However, at the western end of Route 6C lies an application boundary for the consented Clash Gour Wind Farm. In the eastern end of the route lies the application boundary for the consented Meikle Hill Wind Farm. Kellas Wind Farm also lies within Route 6C and is currently at pre-application stage. In addition, a new 2023 application for development of a battery storage energy system has been submitted, which lies at the eastern end of the route option near Dallasbraughty.
Engineering	<u>Infrastructure Crossings</u> There are no major crossings in Route 6A1. It does have a number of road crossings including one B-road, two minor roads, and five restricted local access roads. <u>Environmental Design</u> Route 6A1 remains lower than 300 m for its length. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is UXO risk identified around Forres as the area was a Luftwaffe target. There are no landfill or COMAH sites. There is flooding risk north of Dallas as there are several smaller watercourse crossings which are designated high risk for flooding. The high-risk flood area covers the full width of the route. <u>Ground Conditions</u> The terrain in Route 6A1 is considered constructable. Route 6A1 has no major areas of peatland, with only a few minor pockets identified. <u>Construction and Maintenance</u>	<u>Infrastructure Crossings</u> There are no major crossings in Route 6A2. It does have a number of road crossings including three minor roads and four restricted local access roads. <u>Environmental Design</u> Route 6A2 remains lower than 300 m for its length. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is UXO risk identified around Forres as the area was a Luftwaffe target. There is flooding risk north of Dallas as there are several smaller watercourse crossings which are designated high risk for flooding. The high-risk flood area covers the full width of the route. <u>Ground Conditions</u> The terrain in Route 6A2 is considered constructable. Route 6A2 has no major areas of peatland, with only a few minor pockets identified. <u>Construction and Maintenance</u> Access is not a concern within Route 6A2.	<u>Infrastructure Crossings</u> There are no major crossings in Route 6B. It does have a number of road crossings including three minor roads and two restricted local access roads. <u>Environmental Design</u> Route 6B mostly passes through elevations lower than 300 m, with a small section of 235 m extending into elevations above 300 m. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is UXO risk identified around Forres as the area was a Luftwaffe target. There is low flood risk for this route. <u>Ground Conditions</u> The terrain in Route 6B is considered constructable. Route 6B has a large amount of peat along the route, which may be unavoidable. <u>Construction and Maintenance</u> Route 6B would need additional access tracks to be constructed to facilitate construction and maintenance of an OHL.	<u>Infrastructure Crossings</u> There are no major crossings in Route 6C. It does have a number of road crossings including one minor road and seven restricted local access roads. <u>Environmental Design</u> Route 6C has approximately 3.4 km above 300 m reaching a maximum altitude of 324 m near Mill Buie. Although this presents some additional challenges it is only designated amber as still considered feasible. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is UXO risk identified around Forres as the area was a Luftwaffe target. There is low flood risk for this route. <u>Ground Conditions</u> The terrain in Route 6C is considered constructable however there are steep slopes throughout the route that could be challenging, particularly around Loch Dallas and Red Craigs. Peat in Route 6C is likely to be unavoidable. <u>Construction and Maintenance</u>

Topic	Route 6A1	Route 6A2	Route 6B	Route 6C
	Access is not a concern within Route 6A1. Route 6A1 has a slightly higher tension to suspension tower ratio than Routes 6A2 and 6B, although it may be possible to reduce some of these angles through the alignment process. <u>Proximity</u> There are no residential buildings within 170 m of the route. Nine non-residential buildings lie within 170 m of the route. Route 6A1 passes to the north of Dallas. Route 6A1 has no known wind farms, communication masts and metallic pipelines.	Route 6A2 does not have significant angle changes or require excessive numbers of angle towers. <u>Proximity</u> There are no residential buildings within 170 m of the route. 15 non-residential buildings lie within 170 m of the route. Route 6A2 passes to the north of Dallas. Route 6A2 is constrained at its eastern extent by Kellas Wind Farm which is currently in scoping. This wind farm consists of eight turbines with 170 m rotor diameter. Only a small proportion of the route is constrained and alignment options within the route are possible. Route 6A2 has no known communication masts and metallic pipelines.	Route 6B does not have significant angle changes or require excessive numbers of angle towers. <u>Proximity</u> There are no residential buildings within 170 m of the route. Five non-residential buildings lie within 170 m of the route. Route 6A2 is constrained at its eastern extent by Kellas Wind Farm which is currently in scoping. This wind farm consists of eight turbines with 170 m rotor diameter. Only a small proportion of the route is constrained and alignment options within the route are possible. Route 6B has no known communication masts, metallic pipelines and urban environments.	Route 6C would need additional access tracks to be constructed to facilitate construction and maintenance of an OHL. Route 6C has a slightly higher tension to suspension tower ratio than Routes 6A2 and 6B, although it may be possible to reduce some of these angles through the alignment process. <u>Proximity</u> There are no residential buildings within 170 m of the route. Nine non-residential buildings lie within 170 m of the route. Route 6C is in close proximity to several proposed wind farms, with two key wind farms causing significant constraints, namely Clash Gour and Kellas. The consented Clash Gour Wind Farm consists of 12 turbines with 152 m rotor diameter that sit to the south of Route 6C. Kellas Wind Farm has submitted an application in scoping for eight turbines with rotor diameters of 170 m. These turbines are situated across Routes 6C and 7B blocking the entire route. Further engineering considerations would need to be made if this option is taken forward as the proposed route. Route 5A has no known communication masts, metallic pipelines and urban environments.
Economic	The Capital cost of Route 6A1 is estimated to be roughly 6 % higher than the lowest cost option. The main difference between the options from a cost perspective is a slightly longer route and the need for an additional tension tower, in comparison to Route 6A2. There is also the requirement for crossing protection for a road crossing (this was the only option which required this).	This is the lowest cost option for Section 6.	The difference in price between Route 6A2 and 6B was driven by the increased route length (tower, conductor and access track requirements). The differential is not significant as no additional tension towers were needed, just suspension towers.	Route 6C was estimated to have the highest capital cost of the options for Section 6, roughly 25 % greater than the lowest cost option. It has no identified road crossings or OHL diversion requirements, with the higher price driven by an increased route length and higher number of tension towers.

Table 5-12 shows the RAG Ratings for Section 6. The Preferred Route from an environmental perspective is Route 6C. Route 6C has a lower proportion of broadleaf woodland therefore it is preferred for Protected Species. Regarding Cultural Heritage, Route 6C is preferred as it is distanced from a number of sensitive assets that lie within the 'A' routes. Route 6C is also preferred from a Landscape and Visual perspective, as it runs wide of most sensitive receptors in the area, with few residential properties and little sign of recreational activity within the route. It also avoids Dallas, where the 'A' routes would be very intrusive in the landscape. However, Route 6C does have a large area of irreplaceable peatland habitat, and for that reason it was not the Preferred Route for Habitats. If Route 6C is chosen as the proposed route to take forward to alignment stage in Section 6, a consideration will need to be given to whether it is possible to avoid peatland habitats. Similarly to Section 5, all routes within Section 6 are constrained by planning proposals for Wind Farms in the area. Route 6A1 is preferred in this respect as it only passes the application boundary of one Wind Farm, whereas the other options are constrained by two.

The Preferred Route from an engineering perspective for Section 6 is Route 6A1, closely followed by Route 6A2, although both of these routes have challenges associated with them. Both routes are similar until they exit Dallas, where Route 6A2 keeps to the south of Hill of the Wangie and Route 6A1 heads to the north. Route 6A1 provides an opportunity to parallel the existing 275 kV OHL in areas on the north side, passing through generally accessible and gradual terrain. On approach to Dallas, Route 6A1 heads to the north of Hill of the Wangie and pushes the line further away from the village, however it does still in effect surround both sides of the village with OHLs, which is less preferred and should be avoided where possible. Route 6B has several constraints relating to sections of peatland and also some steep side slopes as the route travels around Hill of Tomechole and Mill Buie. The route keeps further south around Dallas, but reaches a significant constraint towards the end of the section due to the proposed Kellas Wind Farm. This wind farm is currently in scoping and the proposed turbine layout blocks almost the entirety of the southern routes. Route 6C pushes much further south into an area with very few residential properties and limited existing access. The terrain within this route also looks particularly challenging with significant slopes in sections, craigs and peatland. The only advantages to this route are the distance from properties and the potential to use some of the existing tracks within the forestry, however it is expected significant access works would be required to make construction feasible. Similar to Route 6B, the route is constrained towards the eastern end due to the proposed Kellas Wind Farm. If the proposed layout and turbine dimensions remain the same this route would become unworkable, requiring either a cable section or for the existing 275 kV OHL to be realigned further north.

From a Capital cost perspective, Route 6A2 is favoured but Route 6A1 and 6B are also preferable.

Route 6C is currently the Preferred Route in this section. It ranks lower on cost but is preferable on several environmental aspects. Peatland habitat remains a challenge and further alignment decisions will look to mitigate the impact. A back-up alternative option of Route 6A1 has also been included if a workable alignment past Kellas Wind Farm cannot be found.

Table 5-12 RAG Rating for Section 6

	Parameter	Sub-Parameter	Section 6 Route Options			
			Option 6A1	Option 6A2	Option 6B	Option 6C
Environment	Natural Heritage	Designations	L	M	M	M
		Protected Species	M	M	M	M
		Habitats	H	H	H	H
		Ornithology	L	L	L	L
		Geology. Hydrology, Hydrogeology	M	M	M	M
	Cultural Heritage	Designations	L	L	L	L
		Cultural Heritage Assets	L	L	L	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating			
	Landscape and Visual	Designations	H	L	L	L
		Landscape Character	M/H	M	M	L/M
		Visual	M/H	M/H	M	L/M
	Land Use	Agriculture	L	L	L	L
		Forestry/ Woodland	H	H	H	H
		Recreation	M	M	M	M
	Planning	Proposals	M	L	L	L
Engineering	Infrastructure Crossings	Major Crossings	L	L	L	L
		Road Crossings	L	L	L	L
	Topography	Elevation	L	L	L	M
		Atmospheric pollution	L	L	L	L
		Contaminated land	M	M	M	M
		Flooding	M	M	L	L
	Ground Conditions	Terrain	L	L	M	M
		Peatland	L	L	M	M
	Construction / Maintenance	Access	L	L	M	M
		Angle Towers	M	L	L	M
	Proximity	Clearance distance to buildings	L	L	L	L
		Wind farms	L	M	M	H
		Communication masts	L	L	L	M
		Urban environments	M	M	L	L
		Metallic pipelines	L	L	L	L
Cost	Capital		L	L	L	M
	Operational		L	L	L	M

5.8 Section 7

Table 5-13 shows the comparative analysis for Routes 7A1, 7A2 and 7B.

Table 5-13 Comparative Analysis of Section 7 Routes

Topic	Route 7A1	Route 7A2	Route 7B
Natural Heritage	Designations	Designations	Designations

Topic	Route 7A1	Route 7A2	Route 7B
	There are no Statutory designated sites within routes. Designated sites within 10 km include Buinach and Glenlatterach SSSI, Kellas Oakwood SSSI, Coleburn Pasture SSSI, Loch Oire SSSI, Lethenhill SSSI, Lower River Spey SSSI, River Spey SAC/SSSI, Quarry Wood SSSI, Lower River Spey Basin SAC, Gull Nest SSSI, Loch Spynie SPA/Ramsar/SSSI, Moray and Nairn Coast SPA/Ramsar, Spey Bay SSSI and Moray Firth SPA/SAC. Although the route is within foraging range of geese from Moray Nairn Coast SPA/Ramsar and Loch Spynie SPA/Ramsar, there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey potentially associated with these SPAs than there is further west or east. No non-statutory designations and nature conservation sites are present within 2 km of the route. <u>Protected Species</u> The habitats within Route 7A1 have suitability to support roosting, foraging and commuting bats; foraging badgers and sett creation, wildcats, pine marten, reptiles and red squirrel. Aquatic habitats (dependent on type, substrate and obstacles) have the potential to support commuting and foraging otters, water voles, migratory salmonids and lamprey species, but are considered sub-optimal for freshwater pearl mussel. Areas of standing water and slow-flowing field drains are present, which have the potential to support breeding amphibian populations. The varied habitats within Route 7A1 have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. <u>Habitats</u> Route 7A1 largely comprises woodland, peatland habitats, agricultural land and watercourses. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; • H9180 - Tilio-Acerion forests; and • H91E0 - Alluvial forests. The NWSS identified lowland mixed deciduous woodland, upland birchwood and upland mixed ashwood within the route. Of the woodland within the route, 11 areas are listed in the AWI. <u>BNG</u> One woodland in this route, a category 2a woodland, is considered irreplaceable and makes up 0.76 % of the over route area. The remaining woodland, all category 2b LEPO woodland, are not considered irreplaceable, but due to their high distinctiveness should be avoided.	Kellas Oakwood SSSI lies within the route, however it is possible to avoid it. Statutory designated sites within 10 km of the route include Buinach and Glenlatterach SSSI, Coleburn Pasture SSSI, Loch Oire SSSI, Gull Nest SSSI, River Spey SAC/SSSI, Quarry Wood SSSI, Lower River Spey Basin SAC, Lethenhill SSSI, Loch Spynie SPA/Ramsar/SSSI, Lower River Spey SAC, Moray and Nairn Coast SPA/Ramsar, Spey Bay SSSI, Burn of Ballintomb SSSI and Moray Firth SPA. Although the route is within foraging range of geese from Moray Nairn Coast SPA/Ramsar and Loch Spynie SPA/Ramsar, there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey potentially associated with these SPAs than there is further west or east. No non-statutory designations and nature conservation sites were within a 2 km radius of the route. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 7A2 are largely reflective of those within Route 7A1, with the following exceptions, where the boundaries differ, south west of Greens of Bogside: • A greater area of mature broadleaf woodland is present in Route 7A2, predominantly in the riparian extents of the River Lossie. This increases the habitat's roosting suitability for bat species. • A lesser area of coniferous woodland is present in Route 7A2, which decreases the habitat's suitability for red squirrels and pine martens. The large, interconnected, conifer woodland present in the west of Route 7A1 is excluded, which decreases this route's wildcat suitability. <u>Habitats</u> Route 7A2 largely comprises woodland, peatland habitats, agricultural land and watercourses. HABMOS data identifies the same Annex I habitats in Route 7A2 as Route 7A1. The NWSS identified lowland mixed deciduous woodland, upland birchwood, upland mixed ashwood, upland oakwood and wet woodland within the route. Of the woodland within the route, 14 areas are listed in the AWI. <u>BNG</u> Two of the woodland present are considered irreplaceable (Category 1a and 2a) and make up 0.84 % of the total route area. Although the remaining woodlands are category 2b LEPO woodland, and therefore not irreplaceable, they are of high distinctiveness and should be avoided if possible. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. These represent 0.57 % of the total route area and are likely to be avoidable. The total BU for this route is 1962 BU, the highest total BU of the options. <u>Ornithology</u>	Buinach and Glenlatterach SSSI, Kellas Oakwood SSSI and Coleburn Pasture SSSI lie within the route, however it is possible to avoid them. Statutory designated sites within a 10 km radius include Loch Oire SSSI, Gull Nest SSSI, River Spey SAC/SSSI, Lethenhill SSSI, Lower River Spey Basin SAC/SSSI, Moray and Nairn Coast SPA/Ramsar, Quarry Wood SSSI, Loch Spynie SPA/Ramsar/SSSI, Burn of Ballintomb SSSI, Moray Firth SPA, Spynie Quarry and Spey Bay SSSI. Although the route is within foraging range of geese from Moray Nairn Coast SPA/Ramsar and Loch Spynie SPA/Ramsar, there is less suitability of habitat within the route boundary to support wintering geese or breeding osprey potentially associated with these SPAs than there is further west or east. No non-statutory designations and nature conservation sites were within a 2 km radius. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 7B are largely reflective of those within Route 7A1, with the following exceptions: • A greater area of mature broadleaf woodland is present in Route 7B, predominantly in the riparian extents of the River Lossie and other large burns in the Route. This increases the habitat's roosting suitability for bat species. • The coniferous woodland in Route 7B is predominantly grouped within the centre of the boundary. This is large and interconnected to further woodland in the wider area. This increases the suitability for wildcats. • A larger distribution of scrub and tussocky grassland is present, further increasing Route 7B's suitability for reptile species. • A lesser number of standalone waterbodies are present which decreases the habitat's suitability for amphibians. <u>Habitats</u> Route 7B largely comprises woodland, peatland habitats, agricultural land and watercourses. Several water bodies are also located within the route including Glenlatterach Reservoir. HABMOS data identifies the following Annex I habitats within the Route: • H91A0 - Old sessile oak woods; • H91C0 - Caledonian forest; • H9180 - Tilio-Acerion forests; • H91E0 - Alluvial forests; • H4010 - Wet heaths; • H4030 - Dry heaths; • H6230 - Species-rich Nardus grassland; and • H7130 - Blanket bogs. The blanket bog, listed above, is considered an irreplaceable habitat.

Topic	Route 7A1	Route 7A2	Route 7B
	An area of Class 1 peat was identified in the northern extent of the route, near Gallow Hill, which is considered an irreplaceable habitat. This represents 0.34 % of the total route area and is likely to be avoidable. The total BU for this route is 1830 BU, the second lowest total BU of the options. <u>Ornithology</u> It is considered unlikely that Route 7A1 would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 7A1 passes a number of watercourses including the River Lossie, Foths Burn, Rashcrook Burn, Longmorn Burn, Burn of the Elms, Spauchen Burn and Sprot Burn as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 7A1 is underlain by the Grampian Group low productivity aquifer, the Upper Old Red Sandstone moderately productive aquifer, and Middle Old Red Sandstone moderately productivity aquifer. In addition it is underlain by the Strathnairn, Speyside and Cairngorms (ID: 150709), Lossiemouth Coastal (ID: 150813) and Elgin (ID: 150637) groundwater bodies. Route 7A1 is not located within any DWPA. According to the Moray Council Open Map Data there are PWS within Route 7A1.	It is considered unlikely that Route 7A1 would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 7A2 passes over a number of watercourses including the River Lossie, Foths Burn, Rashcrook Burn, Longmorn Burn, Burn of the Elms, Spauchen Burn and Sprot Burn as well as several unnamed watercourses. Several water bodies are also located within the route. Route 7A2 is underlain by Grampian Group low productivity aquifer, Upper Old Red Sandstone moderately productive aquifer, and Middle Old Red Sandstone moderately productivity aquifer. It is also underlain by the Strathnairn, Speyside and Cairngorms (ID: 150709), Lossiemouth Coastal (ID: 150813) and Elgin (ID: 150637) groundwater bodies. A small area in the south west part of Route 7A2 is located within the catchment of Leanoch Burn and Glenlatterach reservoir, which is designated as a SEPA DWPA for surface water. Route 7A2 is located within the abstraction SW DWPA of Glenlatterach reservoir and supplies Glenlatterach WTW. According to the Moray Council Open Map Data there are PWS within Route 7A2.	The NWSS identified lowland mixed deciduous woodland, native pinewood, upland birchwood, upland mixed ashwood, upland oakwood and wet woodland within the Route. Of the woodland within the route, seven areas are listed in the AWI. <u>BNG</u> Two category 2a ancient woodland are present within the route and considered irreplaceable and make up 0.13 % of the overall route. The remaining category 2b LEPO woodlands are not considered irreplaceable. These areas are likely to be avoidable. Areas of Class 1 and Class 2 peat are scattered throughout the route and considered irreplaceable habitat. These represent 2.4 % of the total route area and are likely to be completely avoidable. The total BU for this route is 1038.40 BU, the lowest total BU of the options. <u>Ornithology</u> It is considered unlikely that Route 7B would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 7B crosses a number of watercourses including the River Lossie, Leanoch Burn, Bunr of Bardon, Stripe of Fullfern, Gedloch Burn, Glne Burn, Logie Burn, Spauchen Burn and Sprot Burn as well as several unnamed watercourses. Several water bodies are also located within the route including Glenlatterach Reservoir. Route 7B is underlain by Grampian Group low productivity aquifer and Middle Old Red Sandstone moderately productivity aquifer. It is also underlain by the Strathnairn, Speyside and Cairngorms (ID: 150709), Lossiemouth Coastal (ID: 150813), Elgin (ID: 150637) and Upper Lossie Sand and Gravel (150765) groundwater bodies. Route 7B is located within the catchment of Leanoch Burn and Glenlatterach reservoir, which is designated as a SEPA DWPA for surface water. It is also located within the abstraction SW DWPA of Glenlatterach reservoir and supplies Glenlatterach WTW. According to the Moray Council Open Map Data there are PWS within Route 7B.
Cultural Heritage	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments or Inventory Battlefields within the route. The nearest Scheduled Monument is Birnie Parish Kirk, old graveyard and symbol stone (SM2781), and there is the potential for indirect impacts on this asset. There is a single GDL within the route, Blackhills House (GDL00409). Direct impacts should be avoided on this asset. The potential exists for indirect impacts, on views from the asset to the south, however key views may relate to views within the valley and not extend to the south. Within the route, there are 37 undesignated assets dispersed across the length, with the potential for direct impacts.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments or Inventory Battlefields within the route. The nearest Scheduled Monument is Birnie Parish Kirk, old graveyard and symbol stone (SM2781), and there is the potential for indirect impacts on this asset. There is a single GDL within the route, Blackhills House (GDL00409). Direct impacts should be avoided on this asset. The potential exists for indirect impacts, on views from the asset to the south, however key views may relate to views within the valley and not extend to the south. Within the route, there are 48 undesignated assets dispersed across the length. There is the potential for direct impacts, however these impacts can be reduced through micro siting any alignments to avoid these assets.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments or Inventory Battlefields within the route. Within the route, there are 11 undesignated assets dispersed across the length and there is the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There is a cluster of four Category B Listed Buildings at Coleburn Distillery (LB8435) and there is the potential for indirect impacts on these assets.

Topic	Route 7A1	Route 7A2	Route 7B
	Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There is a Category A and a Category B Listed Building located in proximity of the route and there exists the potential for indirect impacts on these assets.	Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There are two Category A and two Category B Listed Buildings located in proximity of the route. These are Birnie Kirk (LB2294), Category A, Birnie Manse (LB2295), Category B, Kellas House (LB2345), Category A, and Kellas Gatelodge (LB2346), Category B. There exists the potential for indirect impacts on these assets.	
Landscape and Visual	Designations and Character There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. All Section 7 routes end approximately a kilometre north east of the Spey Valley SLA, however topography is such that they are unlikely to affect the SLA. Route 7A1 starts high on the south side of the Pluscarden valley, then across the northern edge of the rolling farmlands (Rolling Farmland and Forests – Moray & Nairn, LCT 285) extending into the southern edge of the Coastal Farmlands - Moray & Nairn LCT 284. It would risk being intrusive in the isolated pocket of very attractive landscape of the Pluscarden valley. In the farmlands an OHL would be out of character but terrain and forestry offer some opportunities for aligning with the terrain. Visual In the western third of Route 7A1 there are few isolated scattered residential receptors but an OHL risks being skylined in views from the Pluscarden valley. In the centre and east there are two small hamlets and some relatively dense clusters of properties such that an OHL avoiding passing close to a number of individual sensitive receptors would be difficult to achieve. It would be clearly visible in panoramic views from the residential receptors and minor roads on the higher ground to the south.	Designations and Character There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 7A2 starts south of Kellas, in the valley of the Lossie, then joins 7A1 across the northern edge of the rolling farmlands (Rolling Farmland and Forests – Moray & Nairn, LCT 285) extending into the southern edge of the Coastal Farmlands - Moray & Nairn LCT 284. It would be out of character in this comparatively bucolic landscape although terrain and forestry offer some opportunities for aligning with the terrain. Visual In Route 7A2 there is a cluster of individual residential properties east of Kellas, then in the centre and east of the route there are two small hamlets and some relatively dense clusters of properties. An OHL avoiding passing close to a number of individual sensitive receptors would be difficult to achieve. It would be clearly visible in panoramic views from the residential receptors and minor roads on the higher ground to the south.	Designations and Character There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 7B runs along the northern edge of LCT Upland Moorland and Forestry, on the edges of a large area of grouse moor and forestry, generally reasonably with the grain but a slightly awkward crossing of Glen of Rothes, followed by the A941. Visual There are a very few well scattered residential properties at the eastern end of Route 7B but none elsewhere. The line would be clearly visible from the A941 where it crosses Glen of Rothes but for most of the route an alignment would likely be little visible from any highly sensitive receptors.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.		
Land Use	Agriculture Route 7A1 begins within agricultural land quality Class 5.1. From here, it runs through Class 4.2 before moving to higher quality land at Foths Wood (Class 3.2). The quality increases to Class 3.1 as the route runs through Longmorn. Forestry This route includes 7.18 ha broadleaved woodland, 36.19 ha coniferous woodland and 43.37 ha total woodland. Recreation The southern part of the Route 7A1 includes a core path near Foths Wood. There are no NCN routes impacted. The area that Route 7A1 passes through may be used in places for commercial highland sports, such as fishing, stalking, shooting. The Millbuies Country Park is at the southern edge of the route and may be visually impacted.	Agriculture Route 7A2 is similar to Route 7A1. The only difference being the route runs south of Kellas rather than to the north. Forestry This route includes 5.59 ha broadleaved woodland, 33.53 ha coniferous woodland and 39.12 ha total woodland. Recreation Route 7A2 is the same as Route 7A1 apart from the western part, which may impact walking routes along the River Lossie. The Mill of Kellas Trout Fishery is included within this route and may be impacted. The impacts for the remainder of the route will be the same as Route 7A1.	Agriculture Route 7B begins in an area of land ranging from Class 4.1 and 5.2. It then passes through land at Class 3.2 near Glenlatterach. The route then moves through 4.1 and Class 5.2. Forestry This route includes 1.38 ha broadleaved woodland, 21.17 ha coniferous woodland and 22.55 ha total woodland. Recreation Route 7B passes through walking routes associated with Glenlatterach Reservoir and a core path near to Bardon. There are no NCN routes impacted. The area that Route 7B passes through may be used in places for commercial highland sports, such as fishing, stalking, shooting.

Topic	Route 7A1	Route 7A2	Route 7B
Engineering	Infrastructure Crossings There are no major crossings in Route 7A1. There are a number of road crossings including one A-road, one B-road, three minor roads and four restricted access roads. Environmental Design Route 7A1 remains lower than 300 m for its length. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is low risk from UXO in Route 7A1 and no landfill sites. There are three registered COMAH sites within the route, which means hazardous chemicals are handled within the route area. Risk of flooding is low within the route. Ground Conditions The terrain in Route 7A1 is considered constructable, however there are some steeper sections around Thomshill and Tiendland. Route 7A1 has no major areas of peatland, with only a few minor pockets identified. Construction and Maintenance Route 7A1 would need additional access tracks to be constructed to facilitate construction and maintenance of an OHL. Route 7A1 has several angle changes along its length. Proximity Two residential buildings lie within 170 m of the route. Seven non-residential buildings lie within 170 m of the route. Route 7A1 has no known wind farms and communication masts, however it does cross an existing intermediate Pressure SGN pipeline along with some lower pressure pipelines within Longmore. Route 7A1 is in close proximity to the urban environments of Fogwatt and Longmorn.	Infrastructure Crossings There are no major crossings in Route 7A2. There are a number of road crossings including one A-road, two B-roads, three minor roads and four restricted access roads. Environmental Design Route 7A2 remains lower than 300 m for its length. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is low risk from UXO in Route 7A2 and no landfill sites. There are three registered COMAH sites within the route, which means hazardous chemicals are handled within the route area. Risk of flooding is low within the route. Ground Conditions The terrain in Route 7A2 is considered constructable, however there are some steeper sections around Thomshill and Tiendland. Route 7A2 has no major areas of peatland, with only a few minor pockets identified. Construction and Maintenance Access is good for Route 7A2, with existing access tracks within 300 m for most of the route. Route 7A2 has several angle changes along its length. Proximity One residential building passes within 170 m of the route. Ten non-residential buildings lie within 170 m of the route. Route 7A2 is slightly constrained by Kellas Wind Farm (currently in scoping) at its western end. Route 7A2 has no known communication masts and metallic pipelines. Route 7A2 is in close proximity to the urban environments of Fogwatt and Longmorn.	Infrastructure Crossings There are no major crossings in Route 7A1. There are a number of road crossings including one A-road, one minor roads and three restricted access roads. Environmental Design Route 7B remains lower than 300 m for its length. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is low risk from UXO in Route 7B and no landfill or COMAH sites. Risk of flooding is low within the route. Ground Conditions The terrain in Route 7A1 is considered constructable, however there are some steeper sections around Hart Hill and Brown Muir, which may be challenging and additional access may be required. Route 7B has no major areas of peatland, with only a few minor pockets identified. Construction and Maintenance Route 7B would need additional access tracks to be constructed to facilitate construction and maintenance of an OHL. Route 7B has several angle changes along its length. Proximity There are no residential buildings within 170 m of the route. Two non-residential buildings lie within 170 m of the route. Route 7B is constrained by Kellas Wind Farm. Route 7B has no known wind farms, urban environments, communication masts and metallic pipelines.
Economic	Route 7A1 is roughly 2 km longer than Route 7B, with a higher ratio of suspension to tension towers, resulting in an increased cost, in comparison to Route 7B.	The main difference between Route 7A2 and 7A1 (increasing costs from a 'green' score to 'amber' score) is an additional 1.4 km route length and an additional crossing protection (three in total required). Both options have the same number of tension towers.	This route is the lowest cost option for Section 7.

Table 5-14 shows the RAG ratings for Section 7. Route 7B is the Preferred Route from an environmental perspective. Route 7B is preferred for Habitats due to having the widest scope for avoiding sensitive Annex I habitats at alignment stage. It is preferred for Cultural Heritage due to being the furthest route from Blackhills House GDL, and reduced settings impacts on Category A and B Listed Buildings. Route 7B is preferred from a Landscape and Visual perspective as it has the potential to be absorbed into the larger, simpler scale of the moorland fringes with extensive forestry, and less visible from any highly sensitive receptors. However, it would be clearly visible from the A941 in focused views along Glen of Rothes. Route 7B is also the only route in Section 7 that does not contain any proposals currently known to the Moray Council planning system. However, it is acknowledged that Route 7B does pass through the Glenlatterach Reservoir Drinking Water Protected Area and alignments would need to be placed either down slope of the reservoir or construction managed sensitively within the drinking water protected area to manage this constraint during construction in line with Scottish Water guidelines for working within Drinking Water Protected Areas.

The engineering preference within Section 7 is Route 7A1, which follows on directly from 6A1. The terrain in this section has some gradual slopes but nothing particularly difficult. The main issue with this route is towards the eastern end of the section around Fogwatt and Longmorn. There are some challenges due to the number of angles required to navigate around these settlements. It is generally possible to keep to 170 m from dwellings with only a few properties impacted, however the OHL would need to change direction a considerable amount and passes directly between groups of properties.

Route 7B has some specific challenges due to the proposed Kellas Wind Farm, which impacts both this and the previous section. In addition to this, the terrain to the south of the existing 275 kV OHL has additional challenges due to steeper slopes and undulated terrain. This occurs specifically when navigating around Hart Hill and Brown Muir and is likely to be challenging.

From both a Capital and Operational cost perspective, Route 7B is favoured.

Overall Route 7B is the Preferred Route, however there are constraints due to the Kellas Wind Farm; if these cannot be overcome, Route 7A1 has been selected as the back-up option.

Table 5-14– RAG Rating for Section 7

	Parameter	Sub-Parameter	Section 7 Route Options		
			Option 7A1	Option 7A2	Option 7B
Environment	Natural Heritage	Designations	L	M	M
		Protected Species	M	M	M
		Habitats	H	H	M
		Ornithology	L	L	L
		Geology. Hydrology, Hydrogeology	M	M	M
	Cultural Heritage	Designations	L	L	L
		Cultural Heritage Assets	L	L	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating		
	Landscape and Visual	Designations	M/H	L	L
		Landscape Character	M/H	M	L/M
		Visual	M/H	M/H	L/M
	Land Use	Agriculture	H	H	L
		Forestry/ Woodland	H	H	H
		Recreation	M	M	M
	Planning	Proposals	M	M	M
Engineering	Infrastructure Crossings	Major Crossings	L	L	L
		Road Crossings	L	L	L
	Topography	Elevation	L	L	L
		Atmospheric pollution	M	M	L
		Contaminated land	L	L	L
		Flooding	L	L	L
	Ground Conditions	Terrain	M	M	M
		Peatland	L	L	L
	Construction / Maintenance	Access	M	L	M
		Angle Towers	M	M	M
	Proximity	Clearance distance to buildings	M	M	L
		Wind farms	L	M	H
		Communication masts	L	L	L
		Urban environments	M	M	L
		Metallic pipelines	M	L	L
Cost	Capital		H	M	L
	Operational		H	M	L

5.9 Section 8

Table 5-15 shows the comparative analysis for Routes 8A1, 8A1, 8B1 and 8B2.

Table 5-15 Comparative Analysis of Section 8 Routes

Topic	Route 8A1	Route 8A2	Route 8B1	Route 8B2
Natural Heritage	<u>Designations</u> River Spey SSSI/SAC is within Route 8A1. Statutory designated sites within 10 km of the route include Loch Oire SSSI, Lower River Spey Bay SAC/SSSI, Moray and Nairn SPA/Ramsar, Coleburn Pasture SSSI, Den of Pitlurg SSSI, Mill Wood, Gull Nest SSSI, Buinach and Glenlatterach SSSI, Loch Spynie SPA/Ramsar/SSSI and Quarry Wood SSSI. The route is in proximity to the Moray and Nairn Coast SPA/Ramsar and Loch Spynie SPA/Ramsar; and has suitable habitat to support wintering geese and breeding osprey potentially associated with these SPAs. The River Spey SAC/SSSI will be intersected and it is assumed this will be over passed without the need for towers or vegetation clearance within or adjacent to the River Spey SSSI/SAC. Non-statutory designations and nature conservation sites within a 2 km radius include: a Red Squirrel Stronghold Ordiequish, Whiteash, Ben Aigan) within the route boundary. A Buglife B-Line intersects through the route boundary for options 8A1 and 8A2. <u>Protected Species</u> The habitats within Route 8A1 have suitability to support roosting, foraging and commuting bats; foraging badgers and sett creation, wildcats, pine marten, reptiles and red squirrel. The woodlands in the central portion of the Route, east of the River Spey, are covered by a Red Squirrel Stronghold area Aquatic habitats (dependent on type, substrate and obstacles) have the potential to support commuting and foraging otters, water voles, migratory salmonids, lamprey species and freshwater pearl mussel. Areas of standing water and slow-flowing field drains are present, which have the potential to support breeding amphibian populations. The varied habitats within Route 8A1 have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. <u>Habitats</u> The route largely comprises woodland, agricultural land and watercourses. Several water bodies are also located within the route. HABMOS data identifies the following Annex I habitats within the Route: • H6230 – Species-rich Nardus grassland;	<u>Designations</u> The Designations appraisal for Route 8A2 is also applicable to Route 8A2. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 8A2 are largely reflective of those within Route 8A1, with the following exceptions where the boundary differs south of Forgie: • A slightly lower portion of mature broadleaf woodland is present in Route 8A2, decreasing the habitat's roosting suitability for bat species. • A greater area of coniferous woodland is present in this route, further increasing the suitability for red squirrels; pine martens; and wildcats. <u>Habitats</u> Route 8A2 largely comprises woodland, peatland habitats, agricultural land and watercourses. Several water bodies are also located within the route. HABMOS data identifies the same Annex I habitats in Route 8A2 as Route 8A1. The NWSS identified upland birchwood, upland mixed ashwood, upland oakwood and wet woodland within the route. Of the woodland within the route, 11 areas are listed in the AWI. <u>BNG</u> None of the present AWI woodlands are considered irreplaceable, although they have a high distinctiveness and impact on the woodland should be avoided. An area of Class 1 peat was identified which is considered an irreplaceable habitat. This represents 1.25 % of the route area and is likely to be avoidable. The total BU for this route is 7397.06 BU, the second lowest total BU of the four options. <u>Ornithology</u> It is considered unlikely that an OHL in Route 8A2 would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern.	<u>Designations</u> River Spey SSSI/SAC is within Route 8B1. Statutory designated sites within a 10 km radius include Loch Oire SSSI, Lower River Spey Bay SSSI/SAC, Moray and Nairn SPA/Ramsar, Coleburn Pasture SSSI, Den of Pitlurg SSSI, Mill Wood SSSI, Gull Nest SSSI, Buinach and Glenlatterach SSSI, Loch Spynie SPA/Ramsar/SSSI, Quarry Wood SSSI and Tips of Corsemaul and Tom Mor SSSI. The route is in proximity to the Moray and Nairn Coast SPA/Ramsar and Loch Spynie SPA/Ramsar; and has suitable habitat to support wintering geese and breeding osprey potentially associated with these SPAs. The River Spey SAC/SSSI will be intersected and it is assumed this will be over passed without the need for towers or vegetation clearance within or adjacent to the River Spey SSSI/SAC. Non-statutory designations and nature conservation sites within a 2 km radius include: a Red Squirrel Stronghold Ordiequish, Whiteash, Ben Aigan) within the route boundary. A Buglife B-Line intersects through the route boundary for options 8B1 and 8B2. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 8B1 are largely reflective of those within Route 8A1, with the following exceptions: • A slightly larger portion of mature broadleaf woodland is present in Route 8B1, due to the greater width of the boundary in the western and central portions. This increases the habitat's roosting suitability for bat species. <u>Habitats</u> Route 8A2 largely comprises woodland, peatland habitats, agricultural land and watercourses. Several water bodies are also located within the route. HABMOS data identifies the same Annex I habitats as in Route 8A1. Additionally, the NWSS identified upland birchwood, upland mixed ashwood, upland oakwood and wet woodland within the route. Of the woodland within the route, nine areas are listed in the AWI.	<u>Designations</u> The Designations appraisal for Route 9B1 is also applicable to Route 9B2. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 8B2 are largely reflective of those within Route 8A1, with the following exceptions: • A slightly larger portion of mature broadleaf woodland is present in Route 8B2, due to the greater width of the boundary in the western and central portions. This increases the habitat's roosting suitability for bat species. • A lesser area of coniferous woodland is present in this Route, which decreases the suitability for red squirrels; pine martens; and wildcats. <u>Habitats</u> The route largely comprises woodland, peatland habitats, agricultural land and watercourses. Several water bodies are also located within the route. HABMOS data identifies the same Annex I habitats as in Route 8B1. The NWSS identified lowland mixed deciduous woodland, native pinewood, upland birchwood, upland mixed ashwood, upland oakwood and wet woodland within the route. Of the woodland within the route, 15 areas are listed in the AWI. <u>BNG</u> No irreplaceable habitat is present within this route. None of the present AWI woodlands are considered irreplaceable, although they have a high distinctiveness and impact on the woodland should be avoided. The total BU for this route is 9078.96 BU, the highest total BU of the four options. <u>Ornithology</u> The impact on bird species for this route will be broadly the same as Route 8B1. <u>Hydrology, Geology and Hydrogeology</u>

Topic	Route 8A1	Route 8A2	Route 8B1	Route 8B2
	• H91A0 – Old sessile oak woods; • H9180 – Tilio-Acerion forests; and • H91E0 – Alluvial forests. The NWSS identified upland birchwood, upland mixed ashwood, upland oakwood and wet woodland within the route. Of the woodland within the route, 11 areas are listed in the AWI. <u>BNG</u> No irreplaceable habitat was recorded within this route. The total BU for this route is 7647.82 BU, the second lowest total BU of the four options. <u>Ornithology</u> It is considered unlikely that an OHL in Route 8A1 would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 8A1 crosses a number of watercourses including Comissary Burn, Red Burn, River Spey, Burn of Ordiequish, Burn of Fochabers, Little Dramiach, Meikle Dramlach, Burn of Redpath, Douglasshiel Burn, Burn of Forgie and Burn of Auchinderran as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 8A1 is underlain by Middle Old Red Sandstone moderately productivity aquifer, and Appin Group low productivity aquifer. In addition, Route 8A1 is underlain by the Lossiemouth Coastal (ID: 150813), Elgin (ID: 150637), Fochabers (ID: 150609), Spey Coastal (ID: 150804) and Keith (ID: 150656) groundwater bodies. Route 8A1 is located within the catchment of River Spey, which is designated as a SEPA DWPA for surface water. A small section in the middle of Route 8A1 is located within the abstraction SW DWPAs of the Dipple boreholes and Ordiequish Collecting Chambers which supply the Spey Scheme (Badentinan) Water Treatment Works (WTW). According to the Moray Council Open Map Data there are PWS within Route 8A1.	<u>Hydrology, Geology and Hydrogeology</u> Route 8A2 crosses a number of watercourses including Comissary Burn, Red Burn, River Spey, Burn of Ordiequish, Douglasshiel Burn, Burn of Rumbuch and Burn of Crooksmill as well as several unnamed watercourses. Several waterbodies are also within the route. Route 8A2 is underlain by the same aquifers and groundwater bodies as Route 8A1. The centre of the Route 8A2 is located within the catchment of River Spey, which is designated as a SEPA DWPA for surface water. A small section in the centre of Route 8A2 is located within the abstraction SW DWPAs of the Dipple boreholes and Ordiequish Collecting Chambers which supply the Spey Scheme (Badentinan) Water Treatment Works (WTW). According to the Moray Council Open Map Data there are PWS within Route 8A2.	<u>BNG</u> None of the present AWI woodlands are considered irreplaceable, although they have a high distinctiveness and impact on the woodland should be avoided. Four parcels of Class 1 peat have been identified which are considered irreplaceable habitats. This represents 1.84 % of the route area and is likely to be avoidable. The total BU for this route is 8652.56 BU, the second highest total BU of the four options. <u>Ornithology</u> It is considered unlikely that an OHL in Route 8B would compromise the conservation status of Schedule 1 protected species or populations of individual species of conservation concern. <u>Hydrology, Geology and Hydrogeology</u> Route 8B1 crosses a number of watercourses including Comissary Burn, Red Burn, River Spey, Burn of Ordiequish, Douglasshiel Burn, Burn of Rumbuch and Burn of Crooksmill as well as several unnamed watercourses. Several water bodies are also located within the route. Route 8B1 is underlain by Middle Old Red Sandstone moderately productivity aquifer, Appin Group low productivity aquifer, and a very small part by Unnamed igneous intrusion (Neoproterozoic), low productivity aquifer. In addition, Route 8B1 is underlain by the Lossiemouth Coastal (ID: 150813), Elgin (ID: 150637), Fochabers (ID: 150609), Alberlour (ID: 150666), Middle Spey Sand and Gravel (ID: 150798), Spey Coastal (ID: 150804), Dufftown (ID: 150504) and Keith (ID: 150656) groundwater bodies. The centre of the Route 8B1 is located within the catchment of River Spey, which is designated as a SEPA DWPA for surface water. Route 8B1 is not located within SW's DWPA. According to the Moray Council Open Map Data there are PWS within Route 8B1.	Route 8B2 crosses a number of watercourses including (west to east): Sauchen Burn, Sprot Burn, Red Burn, River Spey, Cachnamore Burn, Allt Tersie, Malcolm Burn, Burn of Broomstrype, Burn of Curlusk, Burn of Rosarie and Loan Burn as well as several unnamed watercourses. Several water bodies are also located within the route. Route 8B2 is underlain by the same aquifers as Route 8B1. In addition, it is underlain by the Lossiemouth Coastal (ID: 150813), Elgin (ID: 150637), Fochabers (ID: 150609), Alberlour (ID: 150666), Middle Spey Sand and Gravel (ID: 150798), Spey Coastal (ID: 150804), Dufftown (ID: 150504) and Keith (ID: 150656) groundwater bodies. The centre of the Route 8B2 is located within the catchment of River Spey, which is designated as a SEPA DWPA for surface water. Route 8B2 is not located within SW's DWPA. According to the Moray Council Open Map Data there are PWS within Route 8B2.
Cultural Heritage	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments or Inventory Battlefields within the route. There is a single GDL adjacent to the route at the western extent, Blackhills House (GDL00409). The potential exists for indirect impacts,	<u>Designations</u> The Cultural Heritage designations appraisal for Route 8A1 is also applicable to Route 8A2, except Route 8A2 has 27 undesignated assets dispersed throughout the route. <u>Assets</u>	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments or Inventory Battlefields within the route. There are also none in proximity which are likely to experience any indirect impacts. Within the route, there are 27 undesignated assets dispersed across the length, with the potential for direct impacts.	<u>Designations</u> The Cultural Heritage designations appraisal for Route 8B1 is also applicable to Route 8B2, except Route 8B2 has 37 undesignated assets dispersed throughout the route. <u>Assets</u>

Topic	Route 8A1	Route 8A2	Route 8B1	Route 8B2
	on views from the asset to the south east and east, however key views may relate to views within the valley and not extend beyond this. Castle Gordon (GDL00198) is located approximately 1.4 km to the north of the central portion of the route behind the town of Fochabers. Views of the surrounding landscape from the asset are limited by the flat nature of the coastal plain and by the shelter plantings which also screen inward views. Indirect impacts are unlikely. Within the route, there are 29 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There are two Listed Buildings within the route. Orbliston Station (LB15644), Category B and Burn of Redpath Bridge (LB1633), Category C. The potential exists for both direct and indirect impacts on these assets. There are two Listed Buildings in proximity to the route, where the potential for indirect impacts exists. Dipple Burial Ground (LB15639), Category C and Meikle Dramlach Bridge (LB4836) Category B. Any OHL should avoid direct impacts on any Listed Buildings. Indirect impacts on Listed Buildings within and around the central portion of the route can be reduced by siting any alignments to the southern periphery it the eastern and western portions.	There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There is one Listed Building within the route. Orbliston Station (LB15644), Category B. The potential exists for both direct and indirect impacts on this asset. There is one Listed Building in proximity to the route, where the potential for indirect impacts exists, which is Dipple Burial Ground (LB15639). Any alignments should avoid direct impacts on Orbliston Station.	<u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There are four Category B and two Category C Listed Buildings all located in the River Spey valley at the western portion of the route. There is exists the potential for direct and indirect impacts on these assets. There is a Category A Listed Building, Boat of Brig Tollhouse (LB2324), in proximity to the route where the potential exists for indirect impacts. Boat of Brig Tollhouse is south of the route in the River Spey valley, with views to the north and south.	There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There are four Category B and two Category C Listed Buildings all located in the River Spey valley at the western portion of the route. There is exists the potential for direct and indirect impacts on these assets. A number of Listed Buildings are located in proximity to the route. There is a Category A Listed Building, Boat of Brig Tollhouse (LB2324), in proximity to the route where the potential exists for indirect impacts. In addition Mulben Mill (LB2319), Category B, Miller's Cottage (LB2320), Category C, and Mulben Station (LB2321), are located close to the south of the eastern portion of the route at Mulben. Any alignments should avoid direct impacts with Listed Buildings within the route.
Landscape and Visual	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 8A1 crosses the Spey Valley SLA to the south of Fochabers, in parallel and close to existing OHLs. This would intensify the adverse effect of OHL infrastructure on the SLA but would not substantially extend the area affected. Route 8A runs briefly north east through the Rolling Farmland and Forests – Moray & Nairn (LCT 285) before turning slightly south of east to cross the Spey valley where it widens to form part of the Coastal Farmlands - Moray & Nairn (LCT 284), then across the Low Forested Hills (LCT 293) of the Wood of Ordiequish, then into the Upland Farmland (LCT 288) around Keith. East of the Spey, is mainly an open landscape, large fields of intensive agriculture, with a few woodland and forestry blocks, with existing OHLs clearly noticeable. The right bank of the river is a steep wooded river cliff, 25-30 m high with some features of geomorphological interest, backed by a narrow strip of farmland then a wide area of plantation across the low hills. At the eastern end, Route 8A1 crosses the gentle valley at the head of the	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 8A1 crosses the Spey Valley SLA to the south of Fochabers, in parallel and close to existing OHLs. This would intensify the adverse effect of OHL infrastructure on the SLA but would not substantially extend the area affected. Route 8A2 differs from Route 8A1 only at the eastern end, where it diverts south east to stay longer in the Low Forested Hills, entering the Upland Farmland without crossing the valley followed by the A96. Whilst the effect of Route 8A2 would primarily be to intensify the effects of OHL on a landscape already affected, it risks compromising characteristic local elements where it climbs the wooded river cliff on the right bank of the Spey. <u>Visual</u> Route 8A2 differs from Route 8A1 only at the eastern end, where there are fewer residential properties.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 8B1 crosses the Spey Valley to the south east of Inchberry, across Haugh Island and where the east bank is steeper. This would extend the adverse effect of OHL infrastructure on the SLA into an area not currently affected. Route 8B runs south east through a tongue of the Rolling Farmland and Forests – Moray & Nairn (LCT 285) across the flanks of Hunt Hill and Findlays Seat before turning east to drop sharply into and across the Spey valley at the northern end of the Broad Farmed Valley (LCT 287) and up into the southern end of the Low Forested Hills (LCT 293) at Hill of Cairnty. Route 8B1 then continues east across an open area of intensive farmland within the LCT before running into the Upland Farmland (LCT 288) north of the prominent small Hill of Mulderie to merge with the end of Route 8A2.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 8B1 crosses the Spey Valley to the south east of Inchberry, across Haugh Island and where the east bank is steeper. This would extend the adverse effect of OHL infrastructure on the SLA into an area not currently affected. Route 8B2 differs from Route 8A1 east of the Spey Valley, where it turns south east from Hill of Cairnty to run more rapidly into the Upland Farmland (LCT 288) in the valley followed by the A95 and the railway to approach Keith from the east. Route 8B2 would be likely to have relatively limited effects on the wider landscape where it passes through the areas of extensive forestry. However, it would be intrusive where it crosses the Spey valley, in a narrower and more enclosed area with a more intimate character, currently unaffected by OHL development, and also intrusive in the valley approaching Keith.

Topic	Route 8A1	Route 8A2	Route 8B1	Route 8B2
	Burn of Fochabers followed by the A96, across rolling agricultural land where the Low Forested Hills merge into the Upland Farmland. Whilst the effect of Route 8A1 would primarily be to intensify the effects of OHL on a landscape already affected, it risks compromising characteristic local elements where it climbs the wooded river cliff on the right bank of the Spey. Visual In Route 8A1 there is a broad scatter of individual residential properties west of the River Spey, with two small clusters of houses, and similarly a scatter of individual properties in the agricultural land north east of the A96. The route would be clearly visible across the Spey valley from the B9015, and it crosses the Speyside Way at the Ordiequish viewpoint. It would also likely be visible but not necessarily prominent from the A95.		Route 8B1 would be likely to have relatively limited effects on the wider landscape where it passes through the areas of extensive forestry. However, it would be intrusive where it crosses the Spey valley, in a narrower and more enclosed area with a more intimate character, currently unaffected by OHL development. Visual There are two small clusters and three individual residential receptors where Route 8B1 crosses the Spey valley, and scattered receptors in the agricultural lands at the eastern end of the route. The route would be clearly visible across the Spey Valley from parts of the Speyside Way and from parts of the B9015, but roadside trees would filter or screen views from much of the road. It would also likely be visible but not necessarily prominent from the A95.	Visual Route 8B2 differs from Route 8A1 east of the Spey Valley, where it would be clearly visible in views from the A95 and the railway, and from the houses high on the north side of the valley east of Mulben.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.			
Land Use	Agriculture Route 8A1 begins in an area of Land Capable of Agriculture Class 3.2 and 3.1. This is land capable of producing consistently high yields of a narrow range of crops and/ or moderate yields of a wider range. The route passes through an area of Class 3.2 land before returning to Class 3.1 until the River Spey. From here, it runs through land at Class 4.1 and 5.1. As the route crosses the A96, it runs through Class 3.2 land. Forestry This route includes 1.81 ha broadleaved woodland, 59.11 ha coniferous woodland and 60.92 ha total woodland. Recreation Route 8A1 passes through Speymouth Forest and a core path, east of the River Spey. This route is also a long distance walking route named Speyside Way. There are no NCN routes impacted by the route. The area that Route 8A1 passes through may be used in places for commercial highland sports, such as fishing, stalking, shooting. The River Spey is internationally known for its salmon fishing pools.	Agriculture Route 8A2 is the same as Route 8A1 until the A96, where it runs west of the A96 instead of east. This route mostly avoids an area of Class 3.2 in this area. Forestry This route includes 2.24 ha broadleaved woodland, 67.42 ha coniferous woodland and 69.66 ha total woodland. Recreation Route 8A2 follows the same corridor as Route 8A1 until Speymouth Forest, where it runs west of the A96 instead of east. The impact on recreation is assessed in line with Route 8A1 at this stage.	Agriculture Route 8B1 begins in area spanning agricultural Classes 3.2 and 4.1 and 5.1. It then runs through Class 3.1 before the River Spey. The quality then decreases as the route runs through mostly Class 4.1 and 5.2 land. This route cannot avoid an area of Class 3.2 land on the south side of the A96. Forestry This route includes 1.07 ha broadleaved woodland, 65.75 ha coniferous woodland and 66.82 ha total woodland. Recreation Route 8B1 passes through Speymouth Forest and a core path, east of the River Spey. This route is also a long distance walking route named Speyside Way. There are no NCN routes impacted by the route. The area that Route 8B1 passes through may be used in places for commercial highland sports, such as fishing, stalking, shooting. The River Spey is internationally known for its salmon fishing pools.	Agriculture Route 8B2 has the same land classifications as Route 8B1 until east of the Wood of Cairnty where it branches south. From here, it passes through Class 3.2 land around Mulben and the A95. Forestry This route includes 3.87 ha broadleaved woodland, 49.79 ha coniferous woodland and 53.66 ha total woodland. Recreation Route 8B2 is similar to Route 8B1 until Speymouth Forest, where it runs south of Little Mulderie hill. This route also impacts a core path and Speyside Way long distance route. There are no NCN routes impacted by the route. The recreational impacts are largely the same as Route 8B1. This route passes over Glentauchers Distillery.
Planning	There are proposals known to the planning system in the routes, such as erection of new dwellings south of Cranloch, south of Blackburn and a new forestry track in Ordiquish Forest. The 'A' routes are not expected to impact areas sighted for residential or industrial expansion in the Moray Local Development Plan.		There are proposals known to the planning system in the routes, such as erection of a new dwellinghouse on the site of a derelict house in Scotshill, and south east of Gallow Hill. The 'B' routes are not expected to impact areas sighted for residential or industrial expansion in the Moray Local Development Plan.	
Engineering	Infrastructure Crossings	Infrastructure Crossings	Infrastructure Crossings	Infrastructure Crossings

Topic	Route 8A1	Route 8A2	Route 8B1	Route 8B2
	Route 8A1 crosses the Aberdeen-Inverness railway line twice, which is a single-track line with approximately 22 trains crossing per day. Route 8A1 is also likely to cross the Elgin to Keith 132 kV OHL, which would need to be undergrounded. There are a number of road crossings including two A-roads, five B-roads, seven minor roads, three local roads, and eight restricted local access roads. <u>Environmental Design</u> Route 8A1 remains lower than 300 m for its length. Route 8A1 lies within 10 km of Moray Firth coastal region and therefore may have higher atmospheric pollution levels. There is low risk from UXO and no landfill or COMAH sites within the route. Route 8A1 crosses the River Spey, which has a high flood risk associated with the area around it. <u>Ground Conditions</u> The terrain in Route 8A1 is considered constructable. Route 8A1 has no areas of peatland within it. <u>Construction and Maintenance</u> A significant number of forestry tracks are present in Route 8A1, therefore access is not anticipated to be a significant constraint. Route 8A1 does not have significant angle changes and therefore does not require excessive numbers of angle towers. <u>Proximity</u> Nine residential buildings lie within 170 m of the route. 73 non-residential buildings lie within 170 m of the route. Route 8A1 has no known wind farms in close proximity. However, Route 8A1 has a communication mast within it which is likely to be a constraint. In addition to this, Route 8A1 also passes within 1 km of Fochabers and Aultmore urban environments. Lastly, Route 8A1 is constrained by two high pressure SGN pipelines that cross the route.	Route 8A2 crosses the Aberdeen-Inverness railway line twice. Route 8A2 would require three crossings of the Elgin to Keith 132 kV OHL, which is not preferable from an engineering perspective as it introduces more failure points. There are a number of road crossings including two A-roads, five B-roads, eight minor roads, one local road, and 13 local restricted access roads. <u>Environmental Design</u> Route 8A2 remains lower than 300 m for its length. Route 8A2 lies within 10 km of Moray Firth coastal region and therefore may have higher atmospheric pollution levels. There is low risk from UXO and no landfill or COMAH sites within the route. Route 8A2 crosses the River Spey, which has a high flood risk associated with the area around it. <u>Ground Conditions</u> The terrain in Route 8A2 is considered constructable. Route 8A2 passes through a small area of peatland near the Woods of Ordiequish. <u>Construction and Maintenance</u> A significant number of forestry tracks are present in Route 8A2, therefore access is not anticipated to be a significant constraint. Route 8A2 is likely to require a number of angle changes and therefore it is likely to require a number of angle towers. <u>Proximity</u> Eight residential buildings lie within 170 m of the route. 59 non-residential buildings lie within 170 m of the route. Route 8A2 has no known wind farms in close proximity. However, Route 8A2 has a communication mast within it which is likely to be a constraint. In addition to this, Route 8A2 also passes within 1 km of Fochabers and Aultmore urban environments. Lastly, Route 8A2 is constrained by two high pressure SGN pipelines that cross the route.	Route 8B1 crosses the Aberdeen-Inverness railway line twice. It would require one crossing of the Elgin to Keith 132 kV OHL and one crossing of the Dallas to Blackhillock 275 kV OHL. Both these circuits would require new cable sealing end (CSE) platforms to be constructed to allow for the 400 kV OHL to pass through. There are a number of road crossings including two A-roads, four B-roads, six minor roads and ten local restricted access roads. <u>Environmental Design</u> Route 8B1 remains lower than 300 m for its length. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is low risk from UXO and no landfill or COMAH sites within the route. Route 8B1 crosses the River Spey, which has a high flood risk associated with the area around it. <u>Ground Conditions</u> The terrain in Route 8B1 is considered constructable. Route 8B1 has no areas of peatland within it. <u>Construction and Maintenance</u> A significant number of forestry tracks are present in Route 8B1, therefore access is not anticipated to be a significant constraint. Route 8B1 does not have significant angle changes and therefore does not require excessive numbers of angle towers. <u>Proximity</u> Four residential buildings lie within 170 m of the route. 40 non-residential buildings lie within 170 m of the route. Route 8B1 is in close proximity to the proposed Tiendland Wind Farm, however sufficient space is available to pass through and the wind farm is not considered a significant constraint. Route 8B1 is also in close proximity to a BT Fixed Link, which either crosses the route, or enters and parallels it. In addition to this, Route 8B1 also passes within 1 km of Inchberry urban environment. Lastly, Route 8B1 is constrained by two high pressure SGN pipelines that cross the route.	The major crossing appraisal for Route 8B1 is also applicable for Route 8B2. There are a number of road crossings including two A-roads, three B-roads, seven minor roads, and 13 local restricted access roads. <u>Environmental Design</u> Route 8B2 remains lower than 300 m for its length. The route is more than 10 km away from coastal areas so atmospheric pollution is not a concern. There is low risk from UXO in Route 8B2 and no landfill sites. However there is one registered COMAH site within the route, which means hazardous chemicals are handled within the route area. Route 8B2 crosses the River Spey at a point where the flooding is localised and the risk to OHL placement is lower. <u>Ground Conditions</u> The terrain in Route 8B2 is considered constructable, however there are some steeper slopes around Wood of Mulderie which may cause construction challenges. Route 8B2 passes through a small area of peatland near the Woods of Ordiequish. <u>Construction and Maintenance</u> A significant number of forestry tracks are present in Route 8B2, therefore access is not anticipated to be a significant constraint. Route 8B2 is likely to require a number of angle changes and therefore it is likely to require a number of angle towers. <u>Proximity</u> Seven residential buildings lie within 170 m of the route. 62 non-residential buildings lie within 170 m of the route. Route 8B2 is in close proximity to the proposed Tiendland Wind Farm, however sufficient space is available to pass through and the wind farm is not considered a significant constraint. Route 8B2 is also in close proximity to a BT Fixed Link, which either crosses the route, or enters and parallels it. In addition to this, Route 8B2 also passes in close proximity to the urban environments of Inchberry and Mulben. Lastly, Route 8B2 is constrained by three high pressure SGN pipelines that cross the route.

Topic	Route 8A1	Route 8A2	Route 8B1	Route 8B2
Economic	This route is the lowest cost option for Section 8.	Route 8A2 is close in length to the lowest cost option (driving a large proportion of the costings to be similar) but there are additional costs for Route 8A2 to complete two additional 132 kV OHL crossings (three in total), resulting in a significant increase and pushing costs into 'Amber' scoring.	Route 8B1 has the shortest route length of all options identified but the need to cross an existing 275 kV OHL balances out the cost benefit of the reduced length.	Route 8B2 is close in length to the lowest cost option (driving a large proportion of the costings to be similar) but, as with Route 8B1, there is additional costs to complete 275 kV OHL crossings, resulting in costs being roughly 23 % higher for this option.

Table 5-16 shows the RAG ratings for Section 8. Both 'A' routes are preferred over the 'B' routes from an environmental perspective. The 'A' routes have less Annex I and irreplaceable habitat, with Route 8A1 being marginally preferred due to an absence of Class 1 Peatland Habitat. The 'A' options also present the opportunity to avoid impacts on a Category A Listed building that lies within the 'B' routes, with Route 8A2 being marginally preferred. The key differentiator between the 'A' and 'B' routes is the crossing of the River Spey. The Spey valley is an attractive valley, recognised by a regional landscape designation. The 'A' routes cross the valley where it is wide, open to the west and characterised by intensive agriculture and existing OHLs, whereas the 'B' options cross the valley where it is narrower and enclosed with a more intimate character. An OHL in the 'A' options would intensify the effect of OHLs in this area, whereas an OHL in the 'B' options would extend the effect to an area that is currently unaffected and risks being very intrusive in views from sections of the Speyside Way and from the A95 and railway. The 'A' routes are not however preferred from a Hydrology, Geology and Hydrogeology perspective, as they lie within a Scottish Water Drinking Water Protected Area (DWPA) 'The Spey Boreholes, Dipple and the Ordiequish Collecting Chambers'. At this stage, it is anticipated that direct impacts on the water supply infrastructure would be avoidable and indirect impacts avoided at the alignment stage through careful positioning of towers and compliance with Scottish Water guidelines for working within Drinking Water Protected Areas. Route 8A1 is preferred from an environmental perspective as it avoids peatland habitat present in Route 8A2.

Route 8A1 is preferred from an engineering perspective within this section. Route 8A1 passes through relatively gradual terrain for the majority of its length except around the Spey crossing. The existing OHLs all cross the Spey within the route at this point where there is a significant climb, however this is advantageous from an OHL perspective as allows for sufficient clearances to be achieved. After crossing the River Spey, the route parallels with the 132 kV OHL for a considerable length before entering Node 2 (Blackhillock), allowing for multiple alignments upon entry to the proposed Blackhillock 2 substation location. Route 8A2 is generally similar to 8A1, however crosses the 132 kV OHL three times in an attempt to parallel with the 275kV OHL. This provides no advantage and therefore is not considered preferred. Route 8A2 also enters the node from the west direction which pass closer to the town of Keith. Route 8B1 is generally acceptable, however it crosses the River Spey at a slightly steeper and more challenging location. Once past the River Spey, the route remains clear of properties for almost 8 km before crossing the existing 275kV OHL and entering the Blackhillock node from the west. This route however is considered feasible. Route 8B2 does not offer any advantage over Route 8B1, as it moves closer to residential properties and introduces additional angle changes that otherwise could be avoided, so is least preferred.

From a Capital cost perspective, Route 8A1 is favoured but Route 8B1 is also preferable. From an Operational cost perspective, Route 8A1 is preferable. Overall from an economic perspective, Route 8A1 is preferred, with Route 8B2 least preferred.

On balance, Route 8A1 is the Preferred Route from an environmental, engineering and cost perspective.

Table 5-16 RAG Rating for Section 8

	Parameter	Sub-Parameter	Section 8 Route Options			
			Option 8A1	Option 8A2	Option 8B1	Option 8B2
Environment	Natural Heritage	Designations	M	M	M	M
		Protected Species	M	M	M	M
		Habitats	M	M	H	H
		Ornithology	L	L	L	L
		Geology. Hydrology, Hydrogeology	M	M	M	M
	Cultural Heritage	Designations	L	L	L	L
		Cultural Heritage Assets	L	L	M	M
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating			
	Landscape and Visual	Designations	M	M	H	H
		Landscape Character	M	M	H	H
		Visual	M	M	M/H	M/H
	Land Use	Agriculture	H	H	H	H
		Forestry/ Woodland	H	H	H	H
		Recreation	M	M	M	M
	Planning	Proposals	M	M	M	M
Engineering	Infrastructure Crossings	Major Crossings	M	H	H	H
		Road Crossings	M	M	M	M
	Topography	Elevation	L	L	L	L
		Atmospheric pollution	M	M	L	L

	Parameter	Sub-Parameter	Section 8 Route Options			
			Option 8A1	Option 8A2	Option 8B1	Option 8B2
		Contaminated land	L	L	L	M
		Flooding	M	M	M	L
	Ground Conditions	Terrain	L	L	L	M
		Peatland	L	M	M	L
	Construction / Maintenance	Access	L	L	L	L
		Angle Towers	L	L	L	M
	Proximity	Clearance distance to buildings	M	M	M	M
		Wind farms	L	L	L	L
		Communication masts	M	M	M	M
		Urban environments	L	L	L	M
		Metallic pipelines	M	M	M	H
Cost	Capital		L	M	L	M
	Operational		L	M	M	M

5.10 Section 9

Table 5-17 shows the comparative analysis for Routes 9A1, 9A2, 9B1, 9B2, 9C1, 9C2.

Table 5-17 Comparative Analysis of Section 9 Routes

Topic	Route 9A1	Route 9A2	Route 9B1	Route 9B2	Route 9C1	Route 9C2
Natural Heritage	Designations Sheil Wood Pastures SSSI, and Reidside Moss SSSI/SAC are both within Route 9A1, however they can be avoided. Designated sites within 10 km of the route include Mill Wood SSSI, Mortlach Moss SAC, Whitehill SSSI, Den of Pitlurg SSSI, Cullen to Stake Ness Coast SSSI. Designated sites within 20 km of the route (for geese), include Moray and Nairn Coast SPA/Ramsar. This route contains habitat suitable for wintering geese potentially associated with the Moray and Nairn Coast SPA/Ramsar SPA. Consultations with residents of the area around Moss of Crombie indicate that it supports large numbers of wintering pink-footed geese. Small flocks have been observed in wintering bird surveys. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line that intersects through the route boundary. Whitewells Moss LNCS sits within the boundary of Route 9A1	Designations This route is assessed as having the same impact on designations as Route 9A1. Protected Species The habitats and their suitability to support protected species within Route 9A2 are largely reflective of those within Route 9A1, with the following exceptions where the boundary differs east of the B9022 carriageway: • A slightly lower portion of mature broadleaf woodland is present in Route 9A2, decreasing the habitat's roosting suitability for bat species. Habitats Route 9A2 largely comprises agricultural land, woodland, peatland habitat and watercourses. HABMOS data identifies the same Annex I habitats in Route 9A2 as Route 9A1.	Designations There are no Statutory designated sites within the route. Designated sites within 10 km include Moss of Crombie SSSI, Reidside Moss SSSI/SAC, Shiel Wood Pastures SSSI, Whitehill SSSI and Cullen to Stake Ness Coast SSSI. Non-statutory designations and nature conservation sites within a 2 km radius: a Buglife B-Line that intersects through the route boundary. Reidside Moss LNCS sits directly adjacent to the north of 9B1 and 9B2. Whitewells Moss LNCS is 1.6 km west of 9B1 and 9B2. Protected Species The habitats and their suitability to support protected species within Route 9B1 are largely reflective of those within Route 9A1, with the following exceptions: • Decreased suitability for bats; red squirrels; pine martens; and wild cats.	Designations This route is assessed as having the same impact on designations as Route 9B1. Protected Species The habitats and their suitability to support protected species within Route 9B2 are largely reflective of those within Route 9B1, with the following exceptions: • Increased suitability for bats. • A decreased suitability for reptile species. Habitats The route largely comprises agricultural land, woodland, peatland habitat and watercourses. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods; and • H9180 - Tilio-Acerion forests.	Designations Whitehill SSSI, Mortlach Moss SSSI/SAC and Mill Wood SSSI are Statutory designated sites located within the route, however they can be avoided. Designation sites within a 10 km (20 km for geese) radius include Shiel Wood Pastures SSSI, Den of Pitlurg SSSI, Moss of Crombie SSSI, Craigs of Succoth SSSI, Wartle Moss SSSI and Moray and Nairn Coast SPA/Ramsar. This route contains limited habitat suitable for wintering geese potentially associated with the Moray and Nairn Coast SPA/Ramsar SPA. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line that intersects through the route boundary. Bin Hill LNCS is within the boundary of Route 9C1. Protected Species	Designations Mortlach Moss SSSI/SAC is located within the route. Statutory designated sites within a 10 km (20 km for geese) radius include Whitehill SSSI, Mill Wood SSSI, Den of Pitlurg SSSI, Tips of Corsemaul and Tom Mor SSSI/SPA, Shiel Wood Pastures SSSI, Moss of Crombie SSSI, Craigs of Succoth SSSI , Wartle Moss SSSI and Moray and Nairn Coast SPA/Ramsar. This route contains limited habitat suitable for wintering geese potentially associated with the Moray and Nairn Coast SPA/Ramsar SPA. Non-statutory designations and nature conservation sites within a 2 km radius include: Bin Hill LNCS at the route's southern boundary, and a Buglife B-Line intersects through the route boundary. Protected Species

Topic	Route 9A1	Route 9A2	Route 9B1	Route 9B2	Route 9C1	Route 9C2
	and is 1.4 km west of Route 9A2. Foggie Moss LNCS is 500 m north of Routes 9A1 and 9A2 whilst Knock Hill LNCS lies 900 m and 1.8 km north of these respective routes. Reidside Moss LNCS sits directly adjacent to the north of Routes 9A1 and 9A2. Protected Species The habitats within Route 9A1 have suitability to support roosting, foraging and commuting bats; foraging badgers and sett creation, wildcats, pine marten, reptiles and red squirrel. Aquatic habitats (dependent on type, substrate and obstacles) have the potential to support commuting and foraging otters, water voles, migratory salmonids and lamprey species. Areas of standing water and slow-flowing field drains are present, which have the potential to support breeding amphibian populations, including Great Crested Newts. The varied habitats within Route 9A1 have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. Habitats The route largely comprises agricultural land, woodland, peatland habitat and watercourses. HABMOS data identifies the following Annex I habitats (of the Habitats Directive) within the route: • H6230 - Species-rich Nardus grassland; • H6410 - Molinia meadows; • H7230 - Alkaline fens; • H91A0 - Old sessile oak woods; and • H91E0 - Alluvial forests. The NWSS identified upland birchwood, upland mixed ashwood and wet woodland within the route. Of the woodland within the route, 26 areas are listed in the AWI. BNG	Additionally, the NWSS identified upland birchwood, upland mixed ashwood and wet woodland within the route. Of the woodland within the route, 16 areas are listed in the AWI. BNG Of the woodland within the route, 16 areas are listed in the AWI, all of which are category 2b LEPO woodlands and not considered irreplaceable habitat. Areas of Class 1 peat were identified in the eastern half of the route, these areas are considered irreplaceable habitats. These represent 2.29 % of the total route area and are likely to be completely avoidable. The total BU for this route is 3785.17 BU, the third highest total BU of the six options. Ornithology This route is assessed in line with Route 9A1 for ornithology. Hydrology, Geology and Hydrogeology Route 9A2 crosses a number of watercourses including Burn of Aultmore, Burn of Paothnick, River Isla, Small Burn, Burn of Braco, Swifty Burn, Red Burn, Fowlwood Burn, Shiel Burn, Knock burn, Rams Burn, Reddish burn, Foamy Burn, Crombie Burn and Culvie Burn as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 9A2 is underlain by the same aquifers and groundwater bodies as Route 9A1. A small part in the south east of Route 9A2 is located within the catchment of River Deveron, which is designated as a SEPA DWPA for surface water. Route 9A2 is located within the abstraction SW DWPA of River Deveron (Muiresk Intake) which supplies Turriff Water Treatment Works (WTW). There are PWS within the route.	• The River Deveron substrate appears suitable to support freshwater pearl mussels and host species are present in the watercourse. • Increased suitability for reptile species. • Decreased habitat suitability for amphibians. Habitats Route 9B1 largely comprises agricultural land, woodland, peatland habitat and watercourses. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods The NWSS identified lowland mixed deciduous woodland, upland birchwood, upland mixed ashwood and wet woodland within the route. Of the woodland within the route, 12 areas are listed in the AWI. BNG Two of the 12 AWI woodland are category 2a ancient woodland and therefore considered irreplaceable. They make up 0.8 % of the overall route area. Areas of Class 1 peat were identified in the eastern half of the route; these areas are considered irreplaceable habitats. These represent 1.65 % of the total route area and are likely to be completely avoidable. The total BU for this route is 1311.40 BU, the second lowest total BU of the six options. Ornithology This route is assessed in line with Route 9A1 for ornithology. Hydrology, Geology and Hydrogeology Watercourses within Route 9B1 include Burn of Finnygaud, Burn of Backieley, Burn of Arkland, Bunt of Carnousie, River	The NWSS identified lowland mixed deciduous woodland, upland birchwood, upland oakwood and wet woodland within the route. Of the woodland within the route, 14 areas are listed in the AWI. BNG Areas of Class 1 peat were identified in the eastern half of the route, these areas are considered irreplaceable habitats. These represent 0.17 % of the total route area and are located in one specific area to the eastern extent of the route which is unlikely to be spanned/avoided. The total BU for this route is 1166.10 BU, the lowest total BU of the six options. Ornithology This route is assessed in line with Route 9A1 for ornithology. Hydrology, Geology and Hydrogeology Route 9B2 crosses a number of watercourses including Burn of Auchintoul, Burn of Arkland, River Deveron and Burn of Garble as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 9B2 is underlain by the same aquifers and groundwater bodies as Route 9B1. Route 9B2 is located in the northern extent of the River Deveron catchment, which is designated as a SEPA DWPA for surface water. Route 9B2 is located within the abstraction SW DWPA of River Deveron (Muiresk Intake) which supplies Turriff Water Treatment Works (WTW). It is assumed that PWS are present within the route.	The habitats and their suitability to support protected species within Route 9C1 are largely reflective of those within Route 9A1, with the following exceptions: • decreased suitability for bat species. • Increased suitability for red squirrels and pine martens. • A Wildcat Priority Area covers part of the western extent of the Route at Balloch Wood. • The River Deveron substrate appears suitable to support freshwater pearl mussels and host species are present in the watercourse. • Decreased habitat suitability for amphibians. Habitats Route 9C1 largely comprises agricultural land, woodland, peatland habitat and watercourses. HABMOS data identifies the following Annex I habitats within the route: • H6230 - Species-rich Nardus grassland; • H6520 - Mountain hay meadows; • H7230 - Alkaline fens; and • H91A0 - Old sessile oak woods. The NWSS identified lowland mixed deciduous woodland, upland birchwood, upland mixed ashwood and wet woodland within the route. Of the woodland within the route, 40 areas are listed in the AWI. BNG Nine category 2a AWI woodlands are scattered throughout the route and make up 0.63 % of the total route area. Impact on the woodland should be easily avoidable.	The habitats and their suitability to support protected species within Route 9C2 are largely reflective of those within Route 9C1, with the following exceptions: • Increased habitat suitability for red squirrels; pine martens; and wildcats. • Increased suitability for reptile species. Habitats The route largely comprises agricultural land, woodland, peatland habitat and watercourses. HABMOS data identifies the following Annex I habitats (of the Habitats Directive) within the route: • H6230 - Species-rich Nardus grassland; • H6520 - Mountain hay meadows; • H7230 - Alkaline fens; • H91A0 - Old sessile oak woods; and • H91C0 - Caledonian forest. The NWSS identified lowland mixed deciduous woodland, native pinewood, upland birchwood, upland mixed ashwood and wet woodland within the route. Of the woodland within the route, 38 areas are listed in the AWI. BNG The seven AWI woodland areas which are considered irreplaceable ancient woodland account for 0.4 % of the total route area and are likely to be avoidable. The remaining woodland are all category 2b LEPO woodland and not considered irreplaceable habitat. Two areas of Class 1 peat, an irreplaceable habitat, are present at Foggy Moss in the north of the route. These represent 0.2 % of the route area

Topic	Route 9A1	Route 9A2	Route 9B1	Route 9B2	Route 9C1	Route 9C2
	There is no irreplaceable woodland within the route. As the present AWI woodlands have high distinctiveness, any impact on the habitat should be avoided. It is likely that all this woodland can be avoided. Areas of Class 1 peat were identified in the eastern half of the route, these areas are considered irreplaceable habitats. These represent 1.85 % of the total route area and are likely to be avoidable. The total BU for this route is 4713.34 BU, the third highest total BU of the six options. <u>Ornithology</u> Route 9A1 passes around the bog and heathland habitats of Moss of Crombie. It has been advised through consultation with RSPB that common cranes breed on and around Moss of Crombie. These birds, along with a very small number of other pairs in north east Scotland, represent the entirety of this species' breeding population in Scotland. Based on this information it is considered that Route 9A1 has the potential to impact on breeding common crane, which are a species of conservation concern. Otherwise, it is considered unlikely that these options would compromise the conservation status of Schedule 1 protected species. <u>Hydrology, Geology and Hydrogeology</u> Watercourses within Route 9A1 include Burn of Aultmore, Burn of Paothnick, River Isla, Small Burn, Burn of Braco, Swifty Burn, Red Burn, Fowlwood Burn, Shiel Burn, Knock Burn, Rams Burn, Burn of Raemore, Ternemny Burn, Culvie Burn and Burn of Finnygaud as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 9A1 is underlain by Appin Group, unnamed igneous intrusion (Ordovisian to Silurian), Argyll Group and Southern Highland Group low productivity aquifers. It is also underlain by the Keith (ID: 150656), Banff (ID: 150632) and Huntly (ID: 150671) groundwater bodies.		Deveron and Burn of Garble as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 9B1 is underlain by unnamed igneous intrusion (Ordovisian to Silurian), Argyll Group and by Southern Highland Group low productivity aquifers. Route 9B1 is also underlain by Banff (ID: 150632) and Huntly (ID: 150671) groundwater bodies. Route 9B1 is located to the east within the catchment of River Deveron, which is designated as a SEPA DWPA for surface. Route 9B1 is located within the abstraction SW DWPA of River Deveron (Muiresk Intake) which supplies Turriff Water Treatment Works (WTW). It is assumed that PWS are present within the route.		No irreplaceable blanket bog was recorded within this route. The total BU for this route is 6414.06 BU, the highest total BU of the six options. <u>Ornithology</u> Route 9C1 does not pass in close proximity to Moss of Crombie, however there is still potential for common cranes to occur within the route whilst commuting or foraging. There is also potential for the farmland and woodland habitats associated with the route to support localised populations of Target Species such as breeding waders and raptors. <u>Hydrology, Geology and Hydrogeology</u> The route passes the following watercourses: Burn of Drum, Burn of Ardrone, Paties Burn, Tomanleach Burn, Nethertown Burn, Mackay's Stripe, Balloch Burn, Burn of Cairnie, Road Burn, River Deveron, Burn of Auchmull, Burn of Cobairdy, Burn of Templeland, Whin Burn and Burn of Tollo as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 9C1 is underlain by unnamed igneous intrusion (Neoproterozoic), unnamed igneous intrusion (Ordovisian to Silurian), Appin Group, Argyll Group and a small part of the west by Southern Highland Group low productivity aquifers. Route 9C1 is also underlain by Keith (ID: 150656), Huntly (ID: 150671) and Ellon (ID: 150676) groundwater bodies. Route 9C1 is located within the catchment of the River Isla – source to Keith and within the catchment of River Deveron which are designated as SEPA DWPAs for surface water.	and are likely to be completely avoidable. The total BU for this route is 5150.34 BU, the second highest total BU of the six options. <u>Ornithology</u> This route is assessed in line with Route 9C1 for ornithology. <u>Hydrology, Geology and Hydrogeology</u> The route passes the following watercourses: Burn of Drum, Mill of Wood Burn, Herricks Burn, Birken Burn, Arachie Burn, Garro Burn, Burn of Cairnie, Road Burn, River Deveron, Burn of Auchmull, Burn of Cobairdy, Burn of Templeland, Whin Burn and Burn of Tollo as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 9C2 is underlain by the same aquifers and groundwater bodies as Route 9C1. Route 9C2 is located within the catchment of the River Isla – source to Keith and within the catchment of River Deveron which are designated as SEPA DWPAs for surface water. Route 9C2 is located within the abstraction SW DWPAs of Burn Of Davidstone and Shenwell Spring which supply Herricks Water Treatment Works (WTW). It is also located within the abstraction SW DWPA of River Deveron (Muiresk Intake) which supplies Turriff Water Treatment Works (WTW). It is assumed that PWS are present within the route.

Topic	Route 9A1	Route 9A2	Route 9B1	Route 9B2	Route 9C1	Route 9C2
	Route 9A1 is not located within a SEPA DWPA for surface water. However, it is located within the abstraction SW DWPA of River Deveron (Muiresk Intake) which supplies Turriff Water Treatment Works (WTW). According to the Moray Council Open Map Data there are PWS within Route 9A1. The Aberdeenshire Council does not have online data; in the absence of this information, it has been assumed that PWS are present within Route 9A1.				Route 9C1 is located within the abstraction SW DWPAs of Burn Of Davidstone and Shenwell Spring which supply Herricks Water Treatment Works (WTW). It is also located within the abstraction SW DWPA of River Deveron (Muiresk Intake) which supplies Turriff Water Treatment Works (WTW). It is assumed that PWS are present within the route.	
Cultural Heritage	<u>Designations</u> There are no World Heritage Sites, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There is a single Scheduled Monument within the route, Thorax, stone circle (SM347). Direct impacts must be avoided for this asset. The potential exists for indirect impacts. Within the route, there are 90 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There are eight Category B and two Category C Listed Buildings within the route. A single Category B Building is situated at the northern periphery and there exists the potential for direct and indirect impacts on these assets.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There is potential for indirect impacts on the nearest Scheduled Monument, White Stone, medieval land boundary (SM2131). Within the route, there are 53 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There are four Listed Buildings within the route comprised of one Category A, one Category B, and two Category C. Crombie Castle (B19602) Category A is located in the eastern extent of the route. The cluster of three Listed Buildings is located in the western extent on the southern periphery of the route and the potential exists for direct and indirect impacts on these assets. There is a cluster of three Category B Listed Buildings approximately 100 m to the south of the eastern extent of the route. There is the potential for indirect impacts on these assets.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There is potential for indirect impacts on the nearest Scheduled Monument, White Stone, medieval land boundary (SM2131). The nearest GDL, Forglen (GDL00398), is located approximately 250 m from the eastern extent of the route. Key views are likely in the direction of the Deveron valley to the north and across the agricultural landscape to the east. Within the route, there are 52 undesignated assets, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There are 10 Listed Buildings comprised of four Category B and six Category C. These are dispersed through the route, with a majority in the eastern extent of the route. There is the potential for direct and indirect impacts on these assets. Aberchirder Conservation Area (CA415) is located approximately 725 m to the south of the western extent and contains a number Category B and C Listed Buildings.	<u>Designations</u> There are no World Heritage Sites, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There are two Scheduled Monuments within the route, White Stone, medieval land boundary (SM2131) and Bellman's Wood, stone circle (SM346) both located within the western portion of the route. The potential exists for indirect impacts. There are two Scheduled Monuments in proximity to the eastern extent of the route, Carlin Stone (SM336) and Backhill of Drachlaw, stone circle (SM335). There is the potential for indirect impacts on these assets. Within the route, there are 44 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. There are four Listed Buildings comprised of three Category B and one Category C located in a cluster on the southern periphery of the eastern portion of the route. There is the potential for direct and indirect impacts on these assets. There are a number of Listed Buildings in proximity to the route, including a	<u>Designations</u> There are no World Heritage Sites, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There are two Scheduled Monuments within the route, Raich Farm, stone circle (SM42) located in the central portion and Hare Stone, stone circle (SM338) located at the eastern extent. There are a number of Scheduled Monuments in proximity to the route, Arn Hill, stone circle (SM4) and Cairnton, stone circle (SM11). The potential exists for indirect impacts on these assets. Within the route, there are 84 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. Within the route, there are 10 Listed Buildings comprised of two Category A, five Category B, and one Category C. West Outbuilding at Corse Croft (LB43681) Category A, is located centrally in a flatter portion of the landscape in the central portion of the route and the potential exists for direct and indirect impacts on these assets. There are a number of Listed Buildings within proximity of the route,	<u>Designations</u> There are no World Heritage Sites, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There are two Scheduled Monuments within the route, Raich Farm, stone circle (SM42) and Hare Stone, stone circle (SM338). There are a number of Scheduled Monuments in proximity to the route, Arn Hill, stone circle (SM4) and Cairnton, stone circle (SM11). The potential exists for indirect impacts on these assets. Within the route, there are 84 undesignated assets dispersed across the length, with the potential for direct impacts. <u>Assets</u> There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. Within the route, there are 10 Listed Buildings comprised of two Category A, five Category B, and one Category C. A large portion of these are at Drumblair in the eastern portion of the route. West Outbuilding at Corse Croft (LB43681) Category A, is located centrally in a flatter portion of the landscape in the central portion of the route. The potential exists for direct and indirect impacts on these assets.

Topic	Route 9A1	Route 9A2	Route 9B1	Route 9B2	Route 9C1	Route 9C2
			The potential for indirect impacts exists on these assets.	Category A Listed Building Kinnairdy Castle with Outbuildings (LB19606). There is the potential for indirect impacts on these assets.	specifically concentrated around Drumblair. There is the potential for indirect impacts on Auchanachie Castle (LB3016) Category A.	There are a number of Listed Buildings within proximity of the route, specifically concentrated around Drumblair. There is the potential for indirect impacts on Auchanachie Castle (LB3016) Category A.
Landscape and Visual	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 9A1 overlaps a small area of the Deveron Valley SLA but with opportunities for this to be avoided. Route 9A1 runs out of the north end of Node 2, on the north side of the valley of the Isla, in Upland Farmland (LCT 288) widening out to cross the long ridge of Sillyearn Hill then across the broad valley of the Sheil Burn. It then turns north east into, and across the higher rolling ground of the Low Hills and Basins (LCT 18) and into the broad valley of the Burn of Auchintoul. A new OHL closely parallel to the existing OHL along the Isla valley would increase the effect of OHL on the local landscape to an intrusive degree, but there are opportunities in open ground well separated to the north of the valley. Care would need to be taken in the crossing of the long ridge of Sillyearn Hill to ensure an acceptable landscape fit. There would appear to be few landscape constraints to developing an OHL in the broad valley east of Sillyearn Hill, but in the Low Hills and Basins (LCT 18) landscape east of B9022 there is a risk of an OHL being intrusive if running over the tops of the hill. <u>Visual</u> There is an irregular scatter of individual residential receptors throughout Route 9A1, with concentrations along the minor roads west of Sillyearn Hill, around the south of the hill, and along the B9022, as well as small clusters at Drumnagorrach, Knock, Ordiquhill and Culvie. The broad valleys either side of	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 9A2 runs for approximately 3 km through the Deveron Valley SLA. Route 9A2 runs out of the north end of Node 2 then east, on the north side of the valley of the Isla, in Upland Farmland (LCT 288) widening out to cross the long ridge of Sillyearn Hill then across the broad valley of the Sheil Burn. It then continues east over Little Brown Hill, part of the higher rolling ground of the Low Hills and Basins (LCT 18) and within the Deveron Valley SLA, and into the broad valley of the Burn of Auchintoul. An OHL closely parallel to the existing OHL along the Isla valley would increase the effect of OHL on the local landscape to an intrusive degree, but there are opportunities in open ground well separated to the north of the valley. Care would need to be taken in the crossing of the long ridge of Sillyearn Hill to ensure an acceptable landscape fit in accordance with Holford Rule 4. There would appear to be few landscape constraints to developing an OHL in the broad valley east of Sillyearn Hill, but in the Low Hills and Basins (LCT 18) landscape east of B9022 an OHL across Little Brown Hill is likely to be a poor landscape fit (not in accordance with Holford Rule 4) and so intrusive and also potentially prominent on the valleys either side. <u>Visual</u> There is an irregular scatter of individual residential receptors throughout Route 9A1, with concentrations along the minor road	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 9B1 runs for approximately 4 km through the Deveron Valley SLA, crossing the River Deveron in a remote and secluded location. Route 9B1 runs east, north of Aberchirder, a broad route either side of the boundary between the Low Hills and Basins (LCT 18) and the Gently Undulating Coastal Farmland (LCT 14) across the higher ground of Gallow Hill and Black Law then turns south and narrows to cross the gently incised valley of the River Deveron (Farmed and Wooded river valleys, LCT 32) between Carnousie House and Mains of Laithers and into Node 3 from the north west. North of Aberchirder an OHL within the Low Hills and Basins would likely be very intrusive on the setting of the town. However, the broad route offers opportunities for an OHL following the lie of the land. The crossing of the Deveron would be very intrusive in a small pocket of particularly attractive and sensitive landscape. <u>Visual</u> In Route 9B1 there is a broad scatter of individual residential properties along the route, with concentrations in the valley of the Burn of Auchintoul, including at Finnygaud; and along the B9025. The hill ridges around Black Law and Gallow Hill are more sparsely populated. Individual	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 9B2 runs east, south of Aberchirder, along the southern edge of the gently rolling landscape of the Low Hills and Basins (LCT 18), then turns south east at Netherdale (an unregistered designed landscape) to cross the deeply incised valley of the River Deveron (Farmed and Wooded river valleys, LCT 32) north of Drach Law and into Node 3 from the north west. At Netherdale, an OHL in the southern half of the route would compromise the designed landscape of Netherdale House around the Home Farm, and the crossing of the Deveron would risk being extremely intrusive in a small pocket of particularly attractive and sensitive landscape with steep wooded river bluff at Drachlaw. <u>Visual</u> There is a fairly regular scatter of individual residential properties throughout Route 9B2, although by contrast the steep river cliffs around the Deveron are sparsely populated.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 9C1 runs for approximately 8 km through the Deveron Valley SLA, crossing the River Deveron in an open part of the valley where the terrain is relatively gently rolling. Route 9C1 runs out of the south east side of Node 2, then east, a narrow route through forestry on the moderate slopes of south side of the valley of the Isla, the northern edge of Upland Farmland (LCT 288). It turns south at the eastern end of Little Balloch Hill widening to cross a tongue of Farmed and Wooded River Valleys (LCT 32) at Ruthven and back over a shoulder of higher ground, Upland Farmland (LCT 288). It then turns east to cross the valley of the Deveron Farmed and Wooded River Valleys (LCT 32), here a very broad open valley. At the eastern edge of the broad valley the route narrows to pass south of White Hill, then widens again to run east across approximately 10 km of Farmed Rolling Ridges and Hills (LCT 19) to enter the southern end of Node 3. Route 9C1 would be intrusive in the attractive open valley of the river Isla approaching Keith, where this is already affected by OHL, and the eastern end of the route across the Farmed Rolling Ridges runs against the grain of the landscape. However, most of the route is through quite intensively farmed land and offers the opportunity for OHLs that	<u>Designations and Character</u> There are no National Parks, National Scenic Areas or Wild Land Areas within 10 km of the route. Route 9C2 runs for approximately 8 km through the Deveron Valley SLA, crossing the River Deveron in an open part of the valley where the terrain is relatively gently rolling. Route 9C2 runs out of the south east side of Node 2, southwards, across the northern edge of Upland Farmland (LCT 288) across forestry land on the moderate western slopes of The Balloch. It turns eastwards at the Glen of Coachford, across a more rolling landscape of forestry and farmland towards the Burn of Cairnie, the western edge of Farmed Moorland Edge - Aberdeenshire (LCT 27). It continues east to cross the valley of the Deveron Farmed and Wooded River Valleys (LCT 32), here a very broad open valley. At the eastern edge of the broad valley the route narrows to pass south of White Hill, then widens again to run east across approximately 10 km of Farmed Rolling Ridges and Hills (LCT 19), including the hills around Glen Dronach, before entering the southern end of Node 3. Route 9C2 would be relatively intrusive in the Upland Farmland approaching Keith, although there are existing OHLs. The eastern end of the route across the Farmed Rolling Ridges runs against the grain of the landscape. However, most of the route is through quite intensively farmed land and offers the opportunity

Topic	Route 9A1	Route 9A2	Route 9B1	Route 9B2	Route 9C1	Route 9C2
	Sillyearn Hill are by contrast relatively sparsely settled. The route would be clearly visible from the A95 and the B9022 as well as from the minor road network.	west of Sillyearn Hill, around the south of the hill, along the B9022, and small clusters at Drumnagorrach and Knock. The broad valleys either side of Sillyearn Hill are by contrast relatively sparsely settled. The route would be clearly visible from the A95 and the B9022 as well as from the minor road network.	properties are also located within the Deveron valley. The route would be clearly visible from the A97, with the southern section of the route visible from Aberchirder.		would have comparatively limited effect on the character of the landscape. <u>Visual</u> There are very few properties along the narrow section of Route 9B2 from Keith and around Balloch Hill towards Ruthven. There is a concentration around Ruthven; and within the broader valley of the Deveron there are scattered individual residential properties present between the B9022 and the Burn of Cobairdy. There is a good scatter of properties eastwards across the undulating landscape, particularly around the Glen of Dronach.	for an OHL that would have comparatively limited effect on the character of the landscape. <u>Visual</u> There are some small concentrations of properties within the wider Route 9C2 from Keith to Cairnie, including around Mains of Auchoynane, and east of the Glen of Coachford as the valley broadens towards the Burn of Cairnie. The valley slopes of the Burn of Higston are more sparsely populated, with a greater concentration of scattered individual residential properties between the B9022 and the Burn of Cobairdy within the Deveron valley. There is a good scatter of properties eastwards across the undulating landscape, particularly around the Glen of Dronach.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.					
Land Use	<u>Agriculture</u> Route 9A1 begins in Class 3.2 land then immediately runs into higher quality land at Class 3.1. It then passes through an area of lower quality land (Class 5.1), north of Farmtown, which is surrounded by land of higher quality. <u>Forestry</u> This route includes 5.73 ha broadleaved woodland, 17.87 ha coniferous woodland and 23.6 ha total woodland. <u>Recreation</u> Route 9A1 passes over public footpaths near to Knock Hill and Glen Barry. There is no impact on core paths, long distance routes or NCN routes. There are no known areas within the route which are used for commercial highland sports such as fishing, stalking or shooting.	<u>Agriculture</u> Route 9A2 follows the same route as Route 9A1 until the settlement of Knock, where it continues eastwards. As with Route 9A1, this route passes through areas of lower quality land (Class 4.1 and Class 5.2) before again passing through high quality land (Class 3.2) near the A97 and Old Crombie. <u>Forestry</u> This route includes 7.75 ha broadleaved woodland, 11.51 ha coniferous woodland and 19.26 ha total woodland. <u>Recreation</u> Route 9A2 is a similar route to 9A1 and would have the same impact on recreation.	<u>Agriculture</u> The majority of Route 9B1 begins in land Class 3.2, although there is a patch of lower quality land to the north (Class 6.1). The route then passes through lower quality land (Class 4.1) near the A97, before again entering Class 3.2 land. The route passes through Class 3.1 land near the River Deveron. <u>Forestry</u> This route includes 4.01 ha broadleaved woodland, 9.80 ha coniferous woodland and 13.81 ha total woodland. <u>Recreation</u> Route 9B1 passes through public footpaths, particularly North Cranna and Black Law. There is no impact on core paths, long distance routes or NCN routes. The area that Route 9B1 passes through may be used in places for commercial highland sports, such as fishing, stalking, shooting. The route passes through the	<u>Agriculture</u> Route 9B2 begins in land of Class 3.2. This quality land continues until the route reaches the River Deveron. East of the river, the route passes through a small area of Class 5.1 before moving through higher quality land (Class 3.1) near the B9024. <u>Forestry</u> This route includes 3.52 ha broadleaved woodland, 6.27 ha coniferous woodland and 9.79 ha total woodland. <u>Recreation</u> Route 9B2 passes over public footpaths, particularly near the Hill of Laithers and River Deveron. There is no impact on core paths, long distance routes or NCN routes. The area that Route 9B2 passes through may be used in places for commercial highland sports, such as fishing, especially the River Deveron.	<u>Agriculture</u> Route 9C1 begins in an area of land Class 3.2. The route then moves eastwards through land of Class 4.2 with higher quality land to the north. This area could be avoided with further routing design. The route then changes to Class 3.2 as the route moves through Netherton and Ruthven. It passes through an area of Class 4.1 land before returning to Class 3.2. The route then passes through areas of Class 3.1 and Class 3.2 land, with one unavoidable area of Class 3.1 land near the B9001. <u>Forestry</u> This route includes 8.12 ha broadleaved woodland, 50.66 ha coniferous woodland and 58.78 ha total woodland. <u>Recreation</u> Route 9C1 passes through a core path at the edge of Balloch Wood. There is no impact on NCN routes.	<u>Agriculture</u> From near Ruthven, Route 9C2 follows the same route as Route 9C1. Route 9C2 takes the south path around Balloch Wood. The land in this area is Class 4.1 and Class 5.2 surrounded by higher quality areas. <u>Forestry</u> This route includes 6.7 ha broadleaved woodland, 71.16 ha coniferous woodland and 77.86 ha total woodland. <u>Recreation</u> Route 9C2 passes through a core path at the edge of Balloch Wood. There is no impact on NCN routes. The area that Route 9C2 passes through may be used in places for commercial highland sports, such as fishing, especially the River Deveron and wooded areas.

Topic	Route 9A1	Route 9A2	Route 9B1	Route 9B2	Route 9C1	Route 9C2
			River Deveron, where numerous fishing spots are situated.		The area that Route 9C1 passes through may be used in places for commercial highland sports, such as fishing, especially the River Deveron and wooded areas.	
Planning	The Section 9 'A' Route boundaries overlap with a number of applications in the planning system. In the western end at the start of the routes, there is overlap with a consented application for Moray Offshore Wind Farm for construction of onshore electrical transmission infrastructure comprising of a cable transition jointing bay, underground cable circuits, construction of a substation south of Keith, with further connecting cabling to allow connection with existing transmission network at Blackhillock Substation. Approved applications for tourist accommodation can be found near Gallowhill Wood and Bogogie Wood. Erection of new dwellings can be found scattered across the route, particularly around Sillyearn Wood. An approved application for erection of polytunnels and ancillary laboratory / office / store building, including a vehicle access track can be found east of Drumnagorrach. The routes are not expected to impact areas sighted for residential or industrial expansion in the Moray or Aberdeenshire Local Development Plan.		Route 9B1 area overlaps with applications known to the planning system such as single new dwellings and buildings alterations. These are not expected to impact the viability of this route. Route 9B1 crosses an approved application for Deuchries Wind Farm, involving the erection of two wind turbines (total height 119 m) and associated ancillary infrastructure. This route is not expected to impact areas sighted for residential or industrial expansion in the Aberdeenshire Local Development Plan.	Route 9B2 area overlaps with applications known to the planning system such as single new dwellings and buildings alterations. These are not expected to impact the viability of this route. This route is not expected to impact areas sighted for residential or industrial expansion in the Aberdeenshire Local Development Plan.	In the western end of the routes there is overlap with a consented application for Moray Offshore Wind Farm for construction of onshore electrical transmission infrastructure comprising of a cable transition jointing bay, underground cable circuits, construction of a substation south of Keith, with further connecting cabling to allow connection with existing transmission network at Blackhillock Substation. The 'C' routes also pass through an application for reinforcement of the existing 275 kV OHL to operate at 400 kV, however this is an SSEN Transmission project and therefore not a third-party proposal. Applications for erection of new dwellings and footpaths can be found scattered across the route. This route is not expected to impact areas sighted for residential or industrial expansion in the Moray or Aberdeenshire Local Development Plan.	
Engineering	<u>Infrastructure Crossings</u> Route 9A1 would need to cross an existing 132 kV OHL, however this is already undergrounded out of Blackhillock Substation. It also crosses the Aberdeen-Inverness railway line. There are a number of road crossings including two A-roads, two B-roads, nine minor roads and four restricted local access roads. <u>Environmental Design</u> Route 9A1 remains lower than 300 m for its length. The route is further than 10 km from any coastal areas therefore atmospheric pollution is not considered to be a concern. There is low risk from UXO and no landfill or COMAH sites within the route. Flooding is not an engineering concern for this route. <u>Ground Conditions</u> The terrain in Route 9A1 is considered constructable.	<u>Infrastructure Crossings</u> The major crossings for Route 9A1 are also applicable to Route 9A2. There are a number of road crossings including two A-roads, two B-roads, five minor roads and five restricted local access roads. <u>Environmental Design</u> Route 9A2 remains lower than 300 m for its length. The route is further than 10 km from any coastal areas therefore atmospheric pollution is not considered to be a concern. There is low risk from UXO and no landfill or COMAH sites within the route. Flooding is not an engineering concern for this route. <u>Ground Conditions</u> The terrain in Route 9A2 is considered constructable. Areas of peatland are not a concern for engineering in this route, however there are	<u>Infrastructure Crossings</u> There are no major crossings in Route 9B1. There are a number of road crossings including one A-road, two B-roads, five minor roads and five restricted local access roads. <u>Environmental Design</u> Route 9B1 remains lower than 300 m for its length. The route is further than 10 km from any coastal areas therefore atmospheric pollution is not considered to be a concern. There is low risk from UXO and no landfill or COMAH sites within the route. Flooding is not an engineering concern for this route. <u>Ground Conditions</u> The terrain in Route 9B1 is considered constructable.	<u>Infrastructure Crossings</u> There are no major crossings in Route 9B2. There are a number of road crossings including one A-road, one B-road, six minor roads and five restricted local access roads. <u>Environmental Design</u> Route 9B2 remains lower than 300 m for its length. The route is further than 10 km from any coastal areas therefore atmospheric pollution is not considered to be a concern. There is low risk from UXO and no landfill or COMAH sites within the route. Flooding is not an engineering concern for this route. <u>Ground Conditions</u> The terrain in Route 9B2 is considered constructable.	<u>Infrastructure Crossings</u> Route 9C1 crosses the Aberdeen-Inverness railway line. Route 9C1 also crosses an existing 275 kV OHL twice. It should be noted that as part of the North East 400 kV Reinforcement works this line is being increased in operating voltage to 400 kV, and therefore by the time this project reaches construction these crossings would actually be at 400 kV. Any undergrounding of a 400 kV circuit comes with a significant cost and the failure rate of 400 kV cable accessories is high due to their limited use and development. This is therefore considered non preferential from a technical perspective. There are a number of road crossings including one A-road, two B-roads, ten minor roads and nine restricted local access roads. <u>Environmental Design</u> Route 9C1 remains lower than 300 m for its length.	<u>Infrastructure Crossings</u> The major crossings appraisal for Route 9C1 is also applicable to Route 9C2. There are a number of road crossings including one A-road, two B-roads, nine minor roads and ten restricted local access roads. <u>Environmental Design</u> Route 9C2 remains lower than 300 m for its length. The route is further than 10 km from any coastal areas therefore atmospheric pollution is not considered to be a concern. There is low risk from UXO and no landfill or COMAH sites within the route. Flooding is not an engineering concern for this route. <u>Ground Conditions</u> The terrain in Route 9C2 is considered constructable.

Topic	Route 9A1	Route 9A2	Route 9B1	Route 9B2	Route 9C1	Route 9C2
	Areas of peatland are not a concern for engineering in this route, however there are pockets of Class 1 peatland that should be avoided. Construction and Maintenance Section 9 has good access to all the routes due to the number of dispersed dwellings along with a network of forestry access tracks within the woodland areas of the routes. All routes remain within 1 km of an existing track which makes construction and maintenance in these areas easier. Route 9A1 has a number of angle changes and is anticipated to require a number of angle towers. Proximity Five residential buildings lie within 170 m of the route. 59 non-residential buildings lie within 170 m of the route. Route 9A1 has no known wind farms or metallic pipelines in close proximity. However, Route 9A1 has a communication mast within it which may be a constraint, as well as the nearby urban environments of Bracobrae, Farmton, Drumnagorrach and Glen Barry.	pockets of Class 1 peatland that should be avoided. Construction and Maintenance The appraisal for access for Route 9A1 is also applicable to this route. Route 9A1 has a number of angle changes and is anticipated to require a number of angle towers. Proximity Five residential buildings lie within 170 m of the route. 62 non-residential buildings lie within 170 m of the route. Route 9A2 has no known wind farms, metallic pipelines or communications masts in close proximity. However, it is in close proximity to the urban environments of Bracobrae, Farmton, Drumnagorrach and Knock.	Areas of peatland are not a concern for engineering in this route, however there are pockets of Class 1 peatland that should be avoided. Construction and Maintenance The appraisal for access for Route 9A1 is also applicable to this route. Route 9B1 has a number of angle changes and is anticipated to require a number of angle towers. Proximity One residential buildings lie within 170 m of the route. 21 non-residential buildings lie within 170 m of the route. Route 9B1 has a local development of five smaller turbines in close proximity that have rotor diameters of 80 m and 82 m. It is also in close proximity to the urban environments of Aberchirder, Lootcherbrae and Bogton. There are no communication masts or metallic pipelines within Route 9B1.	Areas of peatland are not a concern for engineering in this route. Construction and Maintenance The appraisal for access for Route 9A1 is also applicable to this route. Route 9B2 has a number of angle changes and is anticipated to require a number of angle towers. Proximity One residential buildings lie within 170 m of the route. 24 non-residential buildings lie within 170 m of the route. Route 9B2 has no known wind farms, metallic pipelines, urban environments or communication masts in close proximity.	The route is further than 10 km from any coastal areas therefore atmospheric pollution is not considered to be a concern. There is low risk from UXO and no landfill or COMAH sites within the route. Flooding is not an engineering concern for this route. Ground Conditions The terrain in Route 9C1 is considered constructable, however there may be difficulties with terrain around Meikle Balloch and Little Balloch. Areas of peatland are not a concern for engineering in this route. Construction and Maintenance The appraisal for access for Route 9A1 is also applicable to this route. Route 9C1 is anticipated to be particularly challenging regarding angle changes and is anticipated to require many angle towers. Proximity Five residential buildings lie within 170 m of the route. 53 non-residential buildings lie within 170 m of the route. Route 9C1 has no known wind farms, metallic pipelines, urban environments or communication masts in close proximity.	Areas of peatland are not a concern for engineering in this route. Construction and Maintenance The appraisal for access for Route 9A1 is also applicable to this route. Route 9C2 has fewer angle changes and therefore requires fewer angle towers. Proximity Five residential buildings lie within 170 m of the route. 45 non-residential buildings lie within 170 m of the route. Route 9C2 has no known wind farms, metallic pipelines, urban environments or communication masts in close proximity.
Economic	Route 9A1 is only 0.3 km longer than Route 9A2, so very slight increase in additional conductor and access track requirements compared with Route 9A2 and one additional tension tower required. The difference in cost is less than 5%. There is little differentiating the operational cost of Route 9A1 and 9A2, with no high voltage OHL crossings in either route and similar lengths through woodland.	Route 9A2 has the lowest capital and operational cost of the two 9A options as this route is the shortest in length.	Route 9B1 is almost 2 km longer than Route 9B2, resulting in marginally higher construction costs associated with the route length. There is negligible difference in the operational cost between Route 9B1 and 9B2, with no high voltage OHL crossings in either route and similar lengths through woodland.	Route 9B2 has the lowest capital and operational cost of the two 9B options as this route is the shortest in length.	Route 9C1 requires an existing 400 kV OHL to be dipped, significantly increasing the cost of this option. The estimate cost is approximately 22% higher than the lowest cost option. Route 9C1 has the highest total route length of all options for this section, contributing to it having the highest cost.	Similar to Route 9C1, Route 9C2 requires a 400 kV OHL crossing. This is the main cost differentiator for this option. The estimate cost is approximately 19% higher than the lowest cost option.

Table 5-18 shows the RAG ratings for Section 9. Within Section 9, the 9A options need paired with a 9B option to provide a route across the full section.

The environmental preference is 9C2 as this route has the least landscape and visual effects and best fit with the landscape. Both the 'B' options are very intrusive in the landscape at Aberchirder and they cross the River Deveron in a particularly attractive and remote and secluded location, with 9B2 particularly challenging because of topography where the use of tall crossing towers is likely to be required or a wayleave up through a particularly tall steep wooded bank with closely spaced tension towers. Both would compromise the special qualities of the Deveron SLA. The 9C options cross the river where the topography is relatively gentle, and a straight alignment of suspension towers should be achievable. Of the 9C options, Route 9C2 has less visibility from the A95 and is also preferred from a Habitats perspective, with there being less peatland. The distance from Crombie Moss to the C routes is also beneficial and Route 9C2 is marginally preferred for Designations.

The engineering preference within this section are Route 9A1 and 9B1. Within Section 9 the routes are heavily populated with dispersed residential dwellings. This makes it particularly challenging to achieve longer suspension sections, with a significant number of angles required to navigate around the properties. Two specific major pinch points are present both around Bracobrae and Knock, which are lined with residential properties. It is unlikely that it will be possible to keep to more than 170 m from residential dwellings in these areas. The terrain within this section poses no specific challenges, with some smaller hills and slopes, but all considered constructable. Routes 9A2 and 9B2 were also considered workable however had slightly more residential property pinch points. Route 9C1 was least preferred as it passes through very steep terrain at the start of the route before passing directly over the ridges of Meikle Balloch. It also crosses the existing 275kV OHL that is currently being increased in operating voltage to 400 kV, so one of the circuits would be required to be undergrounded at the crossing point. Route 9C2 has less residential properties within it. However, it passes across more undulated terrain and also requires a crossing of the existing 275/400 kV OHL. This is less preferred from a technical perspective as operationally cable dips require more maintenance and take longer to repair in the event of a failure occurring.

From both a Capital and Operational cost perspective, Route 9A2 and Route 9B2 provided the lowest cost route combination for this section. However, there was little difference with the other A and B combinations, so little preference from a cost perspective. The additional cost of the 400 kV OHL in the Route C options is less favourable.

On balance Route 9C2 was selected as the Preferred Route due to the severity of landscape designation, character and visual effects associated with the 9B options.

Table 5-18 RAG Rating for Section 9

	Parameter	Sub-Parameter	Section 9 Route Options					
			Option 9A1	Option 9A2	Option 9B1	Option 9B2	Option 9C1	Option 9C2
Environment	Natural Heritage	Designations	M	M	L	L	M	M
		Protected Species	M	M	M	M	M	M
		Habitats	M	H	M	M	H	M
		Ornithology	M	M	M	M	M	M
		Geology. Hydrology, Hydrogeology	M	M	M	M	M	M
	Cultural Heritage	Designations	M	L	L	M	M	M
		Cultural Heritage Assets	L	M	L	L	H	H
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating					
	Landscape and Visual	Designations	L	M	H	H	M	M
		Landscape Character	M	M/H	M/H	H	M	M
		Visual	M/H	M/H	M/H	M	M	M
	Land Use	Agriculture	H	H	H	H	H	H
		Forestry/ Woodland	M	M	H	H	H	H
		Recreation	M	M	M	M	M	M
	Planning	Proposals	M	M	M	M	M	M
Engineering	Infrastructure Crossings	Major Crossings	L	L	L	L	H	H
		Road Crossings	M	M	L	L	M	M
	Topography	Elevation	L	L	L	L	L	L
		Atmospheric pollution	L	L	L	L	L	L
		Contaminated land	L	L	L	L	L	L
		Flooding	L	L	L	L	L	L
	Ground Conditions	Terrain	L	L	L	L	M	L
		Peatland	L	L	L	L	L	L
	Construction / Maintenance	Access	L	L	L	L	L	L
		Angle Towers	M	M	M	M	M	L
	Proximity	Clearance distance to buildings	M	M	M	M	M	M
		Wind farms	L	L	L	L	L	L

	Parameter	Sub-Parameter	Section 9 Route Options					
			Option 9A1	Option 9A2	Option 9B1	Option 9B2	Option 9C1	Option 9C2
		Communication masts	M	L	L	L	L	L
		Urban environments	M	M	M	L	L	L
		Metallic pipelines	L	L	L	L	L	L
Cost	Capital		L	L	L	L	M	L
	Operational		L	L	L	L	M	M

5.11 Section 10

Table 5-19 shows the comparative analysis for Routes 10A, 10B and 10C.

Table 5-19 Comparative Analysis of Section 10 Routes

Topic	Route 10A	Route 10B	Route 10C
Natural Heritage	Designations There are no Statutory designated sites within the route. Statutory designated sites within a 10 km radius of Route 10A include Gight Woods SSSI and Wartle Moss SSSI. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line that intersects through the route boundary. Macterry Moss LNCS is 1.7 km south of Route 10B and 600 m south east of Route 10C. Windyhills LNCS is 2.1 km south of Route 10C. Protected Species The habitats within Route 10A have suitability to support roosting, foraging and commuting bats; foraging badgers and sett creation, reptiles and red squirrel. The farmland, open moors and grasslands within Route 10A are considered too exposed and sub-optimal for wildcats, and the coniferous woodlands are considered too small and dis-connected to habitats in the wider area for pine marten. Aquatic habitats (dependent on type, substrate and obstacles) have the potential to support commuting and foraging otters, water voles, migratory salmonids and lamprey species. Areas of standing water and slow-flowing field drains are present, which have the potential to support breeding amphibian populations. The varied habitats within Route 10A have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. Habitats The route largely comprises agricultural land, woodland, peatland habitat and watercourses. HABMOS data identifies the following Annex I habitat within the route: • H91A0 - Old sessile oak woods. The NWSS identified lowland mixed deciduous woodland and upland birchwood within the route. Of the woodland within the route, two areas are listed in the AWI.	Designations There are no Statutory designated sites within the route. Statutory designated sites within a 10 km radius of Route 10B include Gight Woods SSSI and Wartle Moss SSSI. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line that intersects through the route boundary. Macterry Moss LNCS is 1.7 km south of Route 10B and 600 m south east of Route 10C. Windyhills LNCS is 2.1 km south of Route 10C. Protected Species The habitats and their suitability to support protected species within Route 10B are largely reflective of those within Route 10A, with the following exceptions: • A slightly lower portion of coniferous woodland is present in Route 10B, further decreasing the route's suitability for bat species; red squirrels; pine martens; and wild cats. • Badger setts were identified within and adjacent to the centre of the far eastern extent of Route 10B. • A lesser number of larger watercourses are present in Route 10B compared to 10A, reducing the suitability for aquatic and riparian species, including otters and salmonids. Habitats The route largely comprises agricultural land, woodland and watercourses. HABMOS data identifies the same Annex I habitats within Route 10B as Route 10A. The NWSS identified lowland mixed deciduous woodland and upland birchwood within the route. Of the woodland within the route, 11 areas are listed in the AWI. BNG Of the woodland within the route, 11 areas are listed in the AWI, all of which are category 2b LEPO woodlands and not considered irreplaceable habitat, it is likely that these areas can be avoided.	Designations There are no Statutory designated sites within the route. Statutory designated sites within a 10 km radius of Route 10C include Gight Woods SSSI and Wartle Moss SSSI. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line that intersects through the route boundary. Macterry Moss LNCS is 1.7 km south of Route 10B and 600 m south east of Route 10C. Windyhills LNCS is 2.1 km south of Route 10C. Protected Species The habitats and their suitability to support protected species within Route 10C are largely reflective of those within Route 10B, with the following exceptions where the boundaries differ in the western half of the boundary: • A lower portion of coniferous woodland is present in Route 10C, further decreasing the route's suitability for bat species; red squirrels; pine martens; and wild cats. • A large area of broadleaf woodland is present either side of the Tennen Burn, at the Braes of Slack O' Causeway and Howe Moss. This provides increased roosting opportunities for bat species. Habitats The route largely comprises agricultural land, woodland and watercourses. HABMOS data identifies the same Annex I habitats within Route 10C as Route 10A. Additionally, the NWSS identified upland mixed ashwood within the route. Of the woodland within the route, six areas are listed in the AWI. BNG The woodland in this option is not considered irreplaceable habitat. No irreplaceable blanket bog was found within this route. The total BU for this route is 246.99 BU, the middle total BU of the three options. Ornithology

Topic	Route 10A	Route 10B	Route 10C
	BNG Of the woodland within the route, two areas are listed in the AWI, both of which are category 2b LEPO woodlands and not considered irreplaceable habitat. An area of Class 1 peat, an irreplaceable habitat, was identified in the east of the route, south of Cuminestown along Teuchar Stank. This represents 0.26 % of the total route area, it is likely this could be spanned with careful tower placement. The total BU for this route is 394.85 BU, the highest total BU of the three options. Ornithology There is a potential presence of breeding common cranes within Route 10A, which would represent a nationally important population. Otherwise, it is considered unlikely that the route would compromise the conservation status of Schedule 1 protected species or population of individual species of conservation concern. Hydrology, Geology and Hydrogeology There are a number of watercourses within the route including Burn of Turriff, Burn of Oldmill, Burn of Colp, Idoch Water, Glen Burn and Teuchar Stank as well as several unnamed watercourses. Several water bodies are also located within the route including the Lakes of Hatton. Route 10A is underlain by Middle Old Red Sandstone moderately productivity aquifer and Old Lower Sandstone moderately aquifer which is a locally important multi-layered aquifer. Route 10A is also underlain by Southern Highland Group low productivity aquifer and Turriff (ID: 150600) and New Byth (ID: 150454) groundwater bodies. Route 10A is located within the catchment of Idoch Water which is designated as SEPA DWPA for surface water. Route 10A is not located within SW's DWPA. The Aberdeenshire Council does not have online data, in the absence of this information, it has been assumed that PWS are present within Route 10A.	No irreplaceable blanket bog was found within this route. The total BU for this route is 316.39 BU, the middle total BU of the three options. Ornithology There is a potential presence of breeding common cranes within Route 10B, which would represent a nationally important population. Otherwise, it is considered unlikely that the route would compromise the conservation status of Schedule 1 protected species or population of individual species of conservation concern. Hydrology, Geology and Hydrogeology There are a number of watercourses within the route including Burn of Balquholly and Tifty Burn as well as several unnamed watercourses. Several water bodies are also located within the route. Route 10B is underlain by the same aquifers as Route 10A, with the addition of the Southern Highland Group low productivity aquifer. It is also underlain by Turriff (ID: 150600), Fyvie Castle (ID: 150483), New Byth (ID: 150454) and Ellon (ID: 150676) groundwater bodies. Route 10B is located within the catchment of Idoch Water which is designated as SEPA DWPA for surface water. Route 10B is not located within SW's DWPA. It has been assumed that PWS are present within Route 10B.	There is a potential presence of breeding common cranes within Route 10C, which would represent a nationally important population. Otherwise, it is considered unlikely that the route would compromise the conservation status of Schedule 1 protected species or population of individual species of conservation concern. Hydrology, Geology and Hydrogeology There are a number of watercourses within the route including River Ythan, Tennen Burn and Tifty Burn as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 10C is underlain by Middle Old Red Sandstone moderately productivity aquifer, Old Lower Sandstone moderately aquifer which is a locally important multi-layered aquifer, and Southern Highland Group low productivity aquifer. Route 10C is also underlain by Fyvie Castle (ID: 150483), New Byth (ID: 150454) and Ellon (ID: 150676) groundwater bodies. Route 10C is located within the catchment of Idoch Water which is designated as SEPA DWPA for surface water. Route 10C is not located within SW's DWPA. It has been assumed that PWS are present within Route 10C.
Cultural Heritage	Designations There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There is a GDL, Hatton Castle (GDL00399) located to the south of the route. Within the route, there are 25 undesignated assets dispersed across the length, with the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. Within the route, there is a single Category B Listed Building, Idoch Castle Dovecot (LB16430) located centrally in the route. There exists the potential for direct and indirect impacts on this asset. There is a GDL containing Category A Listed Hatton Castle (LB16431) to the south of the western portion of the route. Key views from the castle cross the GDL and	Designations There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route. There is a Garden and Designed Landscape, Hatton Castle (GDL00399) located to the north of the route. There is the potential for impacts on key views from the adjacent Hill of Darra. Within the route, there are 38 undesignated assets dispersed across the length, with the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There is a GDL containing Category A Listed Hatton Castle (LB16431) which the route wraps around in the western portion of the route. Key views from the castle	Designations There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields. There are also none in proximity which are likely to experience any indirect impacts. Within the route, there are 32 undesignated assets dispersed across the length, with the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There is a Category A Listed Building, Towie Barclay Castle (LB16405) located in proximity to the route. The potential exists for indirect impacts on this asset.

Topic	Route 10A	Route 10B	Route 10C
	beyond into the agricultural landscape. Intervening topography and vegetation may reduce any indirect impacts.	cross the GDL and beyond to the agricultural landscape. Intervening topography and vegetation may reduce any indirect impacts. There is an additional Category A Listed Building in close proximity, with the potential for indirect impacts.	
Landscape and Visual	<u>Designations and Character</u> There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the route. Route 10A runs east from the north of Node 3, at right angles across the valley of the Burn of Turriff, in the Farmed and Wooded River Valleys (LCT 32), into the Undulating Agricultural Heartland (LCT 20) up the valley of the Idoch Water then rising to cross a low ridge of Waggle Hill at Northburnhill, south of Cuminestown. The western half of the route offers reasonable potential for an OHL to follow the lie of the land, although the crossing of the valley of the Burn of Turriff may be slightly awkward. <u>Visual</u> Route 10A would be visible from scattered residential properties throughout the route, as well as from the A947 and local roads. It may also be visible from the southern edge of Turriff.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the route. Route 10B runs east from the centre of Node 3 at right angles across the abandoned valley followed by the A947, in the Farmed and Wooded River Valleys (LCT 32), into the Undulating Agricultural Heartland (LCT 20) across the Hill of Lendrum then across the ridge between Waggle Hill and Deer's Hill. Much of the route offers potential for an OHL to follow the lie of the land, north or south of the Hill of Lendrum. <u>Visual</u> Route 10B would be visible from scattered residential properties throughout the route, as well as from the A947 and local roads. Careful consideration of terrain at alignment stage could reduce the wider visibility of an OHL in this route.	<u>Designations and Character</u> There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the route. Route 10C runs east from the south of Node 3 at right angles across the valley followed by the A947, here occupied by the upper reaches of the Ythan in the Farmed and Wooded River Valleys (LCT 32), into the Undulating Agricultural Heartland (LCT 20) on the south side of Steinman Hill then north east up the broad valley of the Tifty Burn to join Route 10B across the ridge between Waggle Hill and Deer's Hill. Foss Braes, the steep wooded bluff on the east side of the River Ythan, would make crossing the Farmed and Wooded River Valleys landscape quite intrusive. However, east of Steinman Hill the route offers potential for an OHL to follow the lie of the land. <u>Visual</u> Route 10C would be visible from scattered residential properties throughout the route, as well as from the A947 and local roads.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.		
Land Use	<u>Agriculture</u> Route 10A begins in an area of Land Capable of Agriculture Class 3.1 then runs through regions of both land Class 3.2 and 3.1. <u>Forestry</u> This route includes 1.69 ha broadleaved woodland, 7.43 ha coniferous woodland and 9.12 ha total woodland. <u>Recreation</u> Route 10A passes through a core path and NCN Route 1, situated in the north of the area. The area that Route 10A passes through may be used in places for commercial highland sports, such as fishing, stalking and shooting. The route passes over Idoch Water, a tributary of the River Deveron which may host fishing activity.	<u>Agriculture</u> Route 10B also begins in high quality agricultural land Class 3.1, which looks to be unavoidable and then through large areas of class 3.2 land. This route also passes through a small area of lower quality land (Class 4.1). <u>Forestry</u> This route includes 0.51 ha broadleaved woodland, 10.38 ha coniferous woodland and 10.89 ha total woodland. <u>Recreation</u> Route 10B avoids impact to core paths and NCN routes. The area that Route 10B passes through may be used in places for commercial highland sports, such as fishing, stalking and shooting.	<u>Agriculture</u> Route 10C also begins in high quality agricultural land Class 3.1, which looks to be unavoidable, then runs predominantly through regions of both land Class 3.2 and 3.1 land. <u>Forestry</u> This route includes 2.78 ha broadleaved woodland, 8.24 ha coniferous woodland and 11.02 ha total woodland. <u>Recreation</u> Route 10C avoids impact to core paths and NCN routes. It may impact on minor walking routes, such as near Foss Braes. The area that Route 10C passes through may be used in places for commercial highland sports, such as fishing, stalking and shooting.
Planning	All routes overlap with an approved application for construction of onshore electrical transmission cables comprising an onshore transition jointing pit, underground cables within a 33 km corridor, construction of two substations south west of New Deer. The routes overlap with other applications such as new footpaths and erection of a dwelling. The routes are not expected to impact areas sighted for residential or industrial expansion in the Aberdeenshire Local Development Plan.		
Engineering	<u>Infrastructure Crossings</u> Route 10A has no major crossings.	<u>Infrastructure Crossings</u> Route 10B has no major crossings.	<u>Infrastructure Crossings</u> Route 10C has no major crossings.

Topic	Route 10A	Route 10B	Route 10C
	There are a number of road crossings including one A-road, two B-roads, four minor roads and two restricted local access roads. Environmental Design Route 10A remains lower than 300 m for its length. Route 10A lies outwith 10 km of any coastal areas so atmospheric pollution is not a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the route. Ground Conditions The terrain in Route 10A is considered constructable. Route 10A has a small area of peatland within it. Construction and Maintenance Existing access tracks lie within 1 km of the entire route, therefore access is not a great constraint. Route 10A has angle changes and angle towers would be required. Proximity Two residential buildings lie within 170 m of the route. 19 non-residential buildings lie within 170 m of the route. Route 10A has no known wind farms, communication masts or metallic pipelines in close proximity. The route passes in close proximity to the urban environment of Greeness.	There are a number of road crossings including one A-road, eleven minor roads, and five restricted local access roads. Environmental Design Route 10B remains lower than 300 m for its length. Route 10B lies outwith 10 km of any coastal areas so atmospheric pollution is not a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the route. Ground Conditions The terrain in Route 10B is considered constructable. Route 10B has no areas of peatland within it. Construction and Maintenance Existing access tracks lie within 1 km of the entire route, therefore access is not a great constraint. Route 10B has angle changes and angle towers would be required. Proximity Three residential buildings lie within 170 m of the route. 49 non-residential buildings lie within 170 m of the route. Route 10B has no known wind farms, communication masts or metallic pipelines in close proximity. The route passes in close proximity to the urban environments of Birkenhills, Towie and Greeness.	There are a number of road crossings including one A-road, one B-road, ten minor roads, and four restricted local access roads. Environmental Design Route 10C remains lower than 300 m for its length. Route 10C lies outwith 10 km of any coastal areas so atmospheric pollution is not a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the route. Ground Conditions The terrain in Route 10C is considered constructable, however it has some slightly challenging slopes around Steinmanhill where they reach 33 degrees. Route 10C has no areas of peatland within it. Construction and Maintenance Existing access tracks lie within 1 km of the entire route, therefore access is not a great constraint. Route 10C has angle changes and angle towers would be required. Proximity Two residential buildings lie within 170 m of the route. 40 non-residential buildings lie within 170 m of the route. Route 10C has no known wind farms, urban environments, communication masts or metallic pipelines in close proximity.
Economic	This is the lowest cost option for Section 10.	Route 10B is estimated to cost approximately 9% more than the lowest cost option, with difference driven primarily by additional conductor and access track lengths. This is partially balanced by a comparatively reduced number of tension towers and crossing protections.	Route 10C is estimated to cost ~20% more than the lowest cost option, just falling into the 'Amber' classification. The route is roughly 2.7 km longer than the lowest cost option, increasing conductor, tower and access track costs.

Table 5-20 shows the RAG ratings for Section 10. Whilst all the RAG ratings for the routes are similar, Route 10B is preferred from an environmental perspective. Route 10B has the lowest proportion of watercourses and woodlands, therefore less suitable habitats for protected species. It also offers more opportunity than Routes 10A and 10C to reduce potential visibility of the OHL for scattered residential properties across the section, as well as the least awkward crossing of the valley of the Burn of Turriff from a landscape character perspective. Route 10C would be the least preferred from a landscape perspective within Section 10.

The engineering preference within Section 10 is Route 10A. The terrain within this section is relatively gradual with only minor slopes. There are numerous residential properties, but it should be possible to identify an alignment that achieves the required clearances without an excessive number of angle changes. The route also provides a good option for entry into the proposed New Deer 2 substation location. Routes 10B and 10C are both more populated with residential properties, making alignments through the routes more challenging. Towards the proposed New Deer 2 substation location, entry from the south is considered infeasible and these routes are therefore least preferred.

From both a Capital and Operational cost perspective, Route 10A is favoured. Route 10C is the least favoured.

On balance, Route 10A is the Preferred Route overall. Whilst Route 10B is preferred from an environmental perspective, Route 10A offers more potential to identify an alignment option that avoids impacting on residential properties than the other two options.

Table 5-20 RAG Rating for Section 10

	Parameter	Sub-Parameter	Section 10 Route Options		
			Option 10A	Option 10B	Option 10C
Environment	Natural Heritage	Designations	L	L	L

	Parameter	Sub-Parameter	Section 10 Route Options		
			Option 10A	Option 10B	Option 10C
		Protected Species	L	L	L
		Habitats	M	M	M
		Ornithology	M	M	M
		Geology. Hydrology, Hydrogeology	M	M	M
	Cultural Heritage	Designations	L	L	L
		Cultural Heritage Assets	L	L	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating		
	Landscape and Visual	Designations	L	L	L
		Landscape Character	L/M	L/M	M
		Visual	M	M	M
	Land Use	Agriculture	H	H	H
		Forestry/ Woodland	M	M	M
		Recreation	M	M	M
	Planning	Proposals	M	M	M
Engineering	Infrastructure Crossings	Major Crossings	L	L	L
		Road Crossings	L	M	M
	Topography	Elevation	L	L	L
		Atmospheric pollution	L	L	L
		Contaminated land	L	L	L
		Flooding	L	L	L
	Ground Conditions	Terrain	L	L	M
		Peatland	L	L	L
	Construction / Maintenance	Access	L	L	L
		Angle Towers	M	M	M
	Proximity	Clearance distance to buildings	M	M	M
		Wind farms	L	L	L
		Communication masts	L	L	L
		Urban environments	L	M	L
		Metallic pipelines	L	L	L
Cost	Capital		L	L	M
	Operational		L	L	M

5.12 Section 11

Table 5-21 below shows the comparative analysis for Routes 11A, 11B, 11C1, 11C2, 11C3, and 11C4.

Table 5-21 Comparative Analysis of Section 11 Routes

Topic	Route 11A	Route 11B	Route 11C1	Route 11C2	Route 11C3	Route 11C4
Natural Heritage	Designations There are no Statutory designated sites within the route. Statutory designated sites within 10 km include Buchan Ness to Collieston SPA,	Designations There are no Statutory designated sites within the route. Statutory designated sites within 10 km include Buchan Ness to	Designations There are no Statutory designated sites within the route. Statutory designated sites within 10 km include Moss of Cruden SSSI,	Designations There are no Statutory designated sites within the route. Statutory designated sites within 10 km include Buchan Ness	Designations There are no Statutory designated sites within the route. Statutory designated sites within 10 km include Buchan Ness	Designations There are no Statutory designated sites within the route. Statutory designated sites within 10 km include Buchan Ness

Topic	Route 11A	Route 11B	Route 11C1	Route 11C2	Route 11C3	Route 11C4
	Buchan Ness to Collieston SAC/SSSI and Turclossie Moss SAC. Loch of Strathbeg SPA/Ramsar is 10.5 km north of the route and Route 11A contains limited habitat suitable for wintering geese potentially associated with this SPA. Non-statutory designations and nature conservation sites within a 2 km radius include: one Buglife B-Line that intersects through the route boundary. <u>Protected Species</u> The habitats within Route 11A have suitability to support roosting, foraging and commuting bats; foraging badgers and sett creation, reptiles and red squirrel. The habitats are considered sub-optimal for wildcats and pine marten. Aquatic habitats (dependent on type, substrate and obstacles) have the potential to support commuting and foraging otters, water voles, migratory salmonids and lamprey species. Areas of standing water and slow-flowing field drains are present, which have the potential to support breeding amphibian populations, including Great Crested Newts. The varied habitats within Route 9A1 have the potential to support a wide terrestrial and aquatic invertebrate assemblage, including species of conservation concern. <u>Habitats</u> The route largely comprises agricultural land, woodland and watercourses. HABMOS data identifies the following Annex I habitats within the route: • H91E0 - Alluvial forests. The NWSS identified lowland mixed deciduous woodland and wet woodland within the route. Of the woodland within the route, eight areas are listed in the AWI. <u>BNG</u> Of the woodland within the route, six areas are listed in the AWI, most are category 2b	Collieston SPA and Buchan Ness to Collieston SAC/SSSI. Loch of Strathbeg SPA/Ramsar is 13.5 km north and Ythan Estuary, Sands of Forvie and Meikle Loch SPA/Ramsar is 13.5 km south and Route 11B contains limited habitat suitable for wintering geese potentially associated with these SPAs. Non-statutory designations and nature conservation sites within a 2 km radius include: one Buglife B-Line that intersects through the route boundary. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 11B are largely reflective of those within Route 11A, with the following exceptions: • Decreased habitat suitability for bat species; red squirrels; pine martens; and wild cats. • Increased habitat suitability for reptile species. <u>Habitats</u> The route largely comprises agricultural land, woodland and watercourses. HABMOS data identifies the following Annex I habitats within the route: • H91A0 - Old sessile oak woods The NWSS identified lowland mixed deciduous woodland upland birchwood and wet woodland within the route. Of the woodland within the route, three areas are listed in the AWI. <u>BNG</u> Of the woodland within the route, three areas are listed in the AWI, all of which are category 2b LEPO woodlands and not considered irreplaceable habitat. These can likely be avoided. No irreplaceable blanket bog was recorded within this route.	Buchan Ness to Collieston SPA, Buchan Ness to Collieston SAC/SSSI, Ythan Estuary, Sands of Forvie and Meikle Loch SPA/Ramsar, Meikle Loch and Kippet Hills SSSI and Sands of Forvie and Ythan Estuary SSSI. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line intersects through the route boundary; and Skelmuir Hill, Stirling Hill and Dudwick LNCS is wholly contained within it. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 11C1 are largely reflective of those within Route 11A, with the following exceptions: • Decreased habitat suitability for bat species. <u>Habitats</u> The route largely comprises agricultural land, woodland, peatland and watercourses. HABMOS data identifies the same Annex I habitat within the route as Route 11B. The NWSS identified upland birchwood and wet woodland within the route. Of the woodland within the route, two areas are listed in the AWI. <u>BNG</u> Two areas of Class 1 peat, an irreplaceable habitat, encroach on the edges of the route at Elrick moss and to the east of the A952. These represent 0.15 % of the total route area. It is likely to these areas can be avoided or spanned. The total BU for this route is 194.13 BU, the third lowest total BU of the six options. <u>Ornithology</u> The ornithology assessment for Route 11A is also applicable to Route 11C1. <u>Hydrology, Geology, Hydrogeology</u>	to Collieston SPA, Buchan Ness to Collieston SAC/SSSI, Ythan Estuary, Sands of Forvie and Meikle Loch SPA/Ramsar, Meikle Loch and Kippet Hills SSSI, Collieston to Whinnyfold Coast SSSI and Sands of Forvie and Ythan Estuary SSSI. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line intersects through the route boundary; and Skelmuir Hill, Stirling Hill and Dudwick LNCS is wholly contained within it. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 11C2 are largely reflective of those within Route 11A, with the following exceptions: • Decreased habitat suitability for bat species. • Increased habitat suitability for red squirrels and pine martens. • Increased habitat suitability for reptile species. <u>Habitats</u> The route largely comprises agricultural land, woodland, peatland and watercourses. HABMOS data identifies the same Annex I habitat within the route as Route 11B. The NWSS identified upland birchwood, upland mixed ashwood and wet woodland within the route. Of the woodland within the route, two areas are listed in the AWI. <u>BNG</u> Of the woodland within the route, two areas are listed in the AWI, both of which are category 2b LEPO woodlands and not considered irreplaceable habitat. These can likely be avoided.	to Collieston SPA, Buchan Ness to Collieston SAC and Ythan Estuary, Sands of Forvie and Meikle Loch SPA/Ramsar, Sands of Forvie and Ythan Estuary SSSI, and Meikle Loch and Kippet Hills SSSI. Loch of Strathbeg SPA/Ramsar is 13 km north designated for geese species, Route 11C3 contains limited suitable habitat for wintering geese within the route boundary. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line intersects through the route boundary. Skelmuir Hill/Stirling Hill/Dudwick LNCS also overlaps the route. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 11C3 are largely reflective of those within Route 11A, with the following exceptions: • Decreased habitat suitability for bat species. <u>Habitats</u> The route largely comprises agricultural land, woodland, peatland and watercourses. HABMOS data identifies the same Annex I habitat within the route as Route 11B. The NWSS identified upland birchwood and wet woodland within the route. No woodland listed in the AWI is located within the route. <u>BNG</u> No woodland listed on the AWI was recorded within the route. Class 1 peatland, an irreplaceable habitat, was identified at Moss of Belnagoak, Elrick moss and to the east of the A952. These represent 0.19 % of	to Collieston SPA, Buchan Ness to Collieston SAC, Ythan Estuary, Sands of Forvie and Meikle Loch SPA/Ramsar, Meikle Loch and Kippet Hills SSSI, Collieston to Whinnyfold Coast SSSI and Sands of Forvie and Ythan Estuary SSSI. Loch of Strathbeg SPA/Ramsar is 10 km north and Route 11C4 contains limited suitable habitat for wintering geese potentially associated with this SPA, within the route boundary. Non-statutory designations and nature conservation sites within a 2 km radius include: a Buglife B-Line intersects through the route boundary; and Skelmuir Hill, Stirling Hill and Dudwick LNCS is wholly contained within it. <u>Protected Species</u> The habitats and their suitability to support protected species within Route 11C4 are largely reflective of those within Route 11A, with the following exceptions: • Decreased habitat suitability for bat species. • Increased habitat suitability for red squirrels and pine martens. • A larger area of scrub and tussocky grassland is present, increasing Route 11C2's suitability for reptile species, compared to Route 11A. <u>Habitats</u> The route largely comprises agricultural land, woodland, peatland and watercourses. HABMOS data identifies the same Annex I habitat within the route as Route 11B. Additionally, the NWSS identified upland birchwood, upland mixed ashwood and wet woodland within the

Topic	Route 11A	Route 11B	Route 11C1	Route 11C2	Route 11C3	Route 11C4
	LEPO woodlands and not considered irreplaceable habitat. One very small patch of category 2a woodland is located within the route and is considered irreplaceable. The woodland should be easily avoidable. No irreplaceable blanket bog was recorded within this route. The total BU for this route is 491.79 BU, the third highest total BU of the six options. <u>Ornithology</u> It is considered that Route 11A has the potential to impact on breeding common crane, which are a species of conservation concern. Otherwise, it is considered unlikely that these options would compromise the conservation status of Schedule 1 protected species. <u>Hydrology, Geology, Hydrogeology</u> There are a number of watercourses that cross the route including the Burn of Auchreddie, Derren Burn, Burn of Ludquharn and several unnamed watercourses. Several water bodies are also located within the Route. Route 11A is underlain by unnamed igneous intrusion (Ordovisian to Silurian), Southern Highland Group and Argyll Group low productivity aquifers, where small amounts of groundwater may be present in the near surface weathered zone and in secondary fractures. It is also underlain by Ellon (ID: 150676) and Mintlaw (ID: 150655) groundwater bodies. Route 11A is located within the abstraction SW DWPA of River Ugie which supplies Forehill Water Treatment Works (WTW). It is assumed that PWS are within the route.	The total BU for this route is 128.36 BU, the second lowest total BU of the six options. <u>Ornithology</u> The ornithology assessment for Route 11A is also applicable to Route 11B. <u>Hydrology, Geology, Hydrogeology</u> There are a number of watercourses within the route including the Black Burn, Annochie Burn, Quhomery Burn, Burn of Ludquharn and Burn of Cairngall as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 11B is underlain by the same aquifers and ground waterbodies as Route 11A. Route 11B is located within the abstraction SW DWPA of River Ugie which supplies Forehill Water Treatment Works (WTW). It is assumed that PWS are within the route.	A number of watercourses cross the route including the Black Burn, Ebrie Burn, Burn of Fortree, White Burn, The Slack, Small Burn, Burn of Ludquharn and Burn of Cairngall as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 11C1 is underlain by the same aquifers and groundwater bodies as Route 11A. Route 11C1 is located within the abstraction SW DWPA of River Ugie which supplies Forehill Water Treatment Works (WTW). It is assumed that PWS are within the route.	Class 1 peatland, an irreplaceable habitat, was identified at Elrick moss, to the east of the A952 and at Kinmundy Moss. These represent 2.19 % of the total route area and can likely be avoided through careful tower placement. The total BU for this route is 1505.39 BU, the highest total BU of the six options. <u>Ornithology</u> The ornithology assessment for Route 11A is also applicable to Route 11C2. <u>Hydrology, Geology, Hydrogeology</u> A number of watercourses cross the route, including the Black Burn, Ebrie Burn, Burn of Fortree, White Burn, The Slack and Small Burn as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 11C2 is underlain by the same aquifers and ground waterbodies as Route 11A, with the addition of Neogene Rocks moderately productivity aquifer. Route 11C2 is located within the abstraction SW DWPA of River Ugie which supplies Forehill Water Treatment Works (WTW). It is assumed that PWS are within the route.	the total route area and is likely to be avoidable. The total BU for this route is 117.71 BU, the lowest total BU of the six options. <u>Ornithology</u> The ornithology assessment for Route 11A is also applicable to Route 11C3. <u>Hydrology, Geology, Hydrogeology</u> A number of watercourses cross the route, including the Black Burn, Catto Burn, Ebrie Burn, Burn of Fortree, White Burn, The Slack, Small Burn, Burn of Ludquharn and Burn of Cairngall as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 11C3 is underlain by the same aquifers and groundwater bodies as Route 11C1. Route 11C3 is located within the abstraction SW DWPA of River Ugie which supplies Forehill Water Treatment Works (WTW). It is assumed that PWS are within the route.	route. No woodland listed in the AWI is located within the route. <u>BNG</u> No woodland listed on the AWI was recorded within the route. Class 1 peatland, an irreplaceable habitat, was identified at Moss of Belnagoak, Elrick Moss, to the east of the A952 and at Moss of Kinmundy. These represent 2.16 % of the total route area and is likely to be avoidable or could be spanned through careful tower placement. The total BU for this route is 1431.09 BU, the second highest total BU of the six options. <u>Ornithology</u> The ornithology assessment for Route 11A is also applicable to Route 11C4. <u>Hydrology, Geology, Hydrogeology</u> A number of watercourses cross the route, including the Black Burn, Catto Burn, Ebrie Burn, Burn of Fortree, White Burn, Maling Burn, The Slack and Small Burn as well as several unnamed watercourses. Several water bodies are also located within the Route. Route 11C4 is underlain by the same aquifers and groundwater bodies as Route 11C2. Route 11C4 is located within the abstraction SW DWPA of River Ugie which supplies Forehill Water Treatment Works (WTW). It is assumed that PWS are within the route.
Cultural Heritage	<u>Designations</u> There are no World Heritage Sites, Gardens & Designed Landscapes, or Inventory Battlefields within the route.	<u>Designations</u> There are no World Heritage Sites, Gardens & Designed Landscapes, or Inventory Battlefields within the route.	<u>Designations</u> There are no World Heritage Sites, Scheduled Monuments, Gardens & Designed Landscapes, or Inventory Battlefields within the route.	<u>Designations</u> The Cultural Heritage designations appraisal for Route 11C1 is also applicable to Route 11C2. <u>Assets</u>	<u>Designations</u> The Cultural Heritage designations appraisal for Route 11C1 is also applicable to Route 11C3, however	<u>Designations</u> The Cultural Heritage designations appraisal for Route 11C3 is also applicable to Route 11C4. <u>Assets</u>

Topic	Route 11A	Route 11B	Route 11C1	Route 11C2	Route 11C3	Route 11C4
	There is a single Scheduled Monument within the route, Clackriach Castle (SM5534) located in the western portion of the route. Any OHL should avoid direct impacts on this asset. The potential exists for indirect impacts. In addition, Parkhouse Hill stone circle (SM2), is located in proximity to the route and there is the potential of indirect impacts on the asset from its elevated position adjacent to the route. Within the route, there are 69 undesignated assets, with the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, or Conservation Areas within the route. Within the route there are two Category B Listed Buildings, Hill of Culsh Monument (LB16156) and North Windhill Farm (LB16103). There exists the potential for direct and indirect impacts on these assets. There are a number of Category B Listed Buildings within proximity of the route where the potential for indirect impacts exists. Additionally, Old Deer Conservation Area (CA430) is located approximately 315 m to the north of the central portion of the route, containing a number of Listed Buildings. The integrity of the Conservation Area is not anticipated to be compromised, however, views of an OHL should be taken into account considering the Listed Buildings present within.	There is a single Scheduled Monument within the route, North Mains of Auchmaliddie (SM9392) located within the western potion at a pinch point. Any OHL should ensure no direct impacts on this asset. Potential for indirect impacts exists on this asset. In addition, Easterton of Lenabo, airship station (SM13679), is located is proximity to the route and there is the potential for indirect impacts on the asset. Within the route, there are 27 undesignated assets, which have the potential for direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There is a Category C Listed Building, Skelmuir House (LB16056), located within proximity of the route and the potential exists for indirect impacts on this asset.	There are two Scheduled Monuments in proximity to the route, North Mains of Auchmaliddie (SM9392), and Easterton of Lenabo, airship station (SM13679) with the potential for indirect impacts. Within the route, there are 67 undesignated assets dispersed across the length, which may have direct impacts. Assets There are no Non-Inventory Gardens & Designed Landscapes, Conservation Areas, or Listed Buildings within the route. There is a Category C Listed Building, Skelmuir House (LB16056), located to the north of the eastern portion of the route. The potential exists for indirect impacts on this asset.	The Cultural Heritage assets appraisal for Route 11C1 is also applicable to Route 11C2.	there are 70 undesignated assets within the route. Assets The Cultural Heritage assets appraisal for Route 11C1 is also applicable to Route 11C3.	The Cultural Heritage assets appraisal for Route 11C1 is also applicable to Route 11C4.
Landscape and Visual	Designations and Character There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the routes. Route 11A runs east, north of New Deer, through the very open and gently rolling intensively farmed agricultural landscape of the Undulating Agricultural Heartland (LCT20) to Maud. From Maud to south of Mintlaw station through the Farmland and Wooded	Designations and Character There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the routes. Route 11B runs east, south of New Deer parallel to the existing OHL, through the very open and gently rolling intensively farmed agricultural landscape of the Undulating Agricultural Heartland (LCT20),	Designations and Character There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the routes. Routes 11C loop slightly further to the south, just touching the southern edge of the farmland and wooded polices landscape (LCT 21). The whole area is very open and gently rolling intensively farmed agricultural landscape, with the variations in landscape	Designations and Character There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the routes. Routes 11C loop slightly further to the south, just touching the southern edge of the farmland and wooded polices landscape (LCT 21). The whole area is very open and gently rolling intensively	Designations and Character There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the routes. Routes 11C loop slightly further to the south, just touching the southern edge of the farmland and wooded polices landscape (LCT 21). The whole area is very open and gently rolling intensively	Designations and Character There are no National Parks, National Scenic Areas, Wild Land Areas or Special Landscape Areas within 10 km of the routes. Routes 11C loop slightly further to the south, just touching the southern edge of the farmland and wooded polices landscape (LCT 21). The whole area is very open and gently rolling intensively

Topic	Route 11A	Route 11B	Route 11C1	Route 11C2	Route 11C3	Route 11C4
	Policies (LCT 21) the landscape is similarly intensive agriculture, but more noticeably rolling and parts of the route run over higher ground. East of the A952, the route enters LCT 17, Coastal Agricultural Plain – again similarly intensive agriculture, and gently rolling similar to LCT20. The generally large scale, open, intensively agricultural landscapes crossed by Route 11A are for the most part likely to be able to absorb an OHL development. However, where the route runs over higher ground through the Farmland and Wooded Policies an OHL would risk becoming locally prominent at Hill of Dens. Visual There is a relatively dense scatter of individual residential properties throughout Route 11A, becoming more separated at the eastern end of the route where the farm holdings appear larger. An OHL on this route would be clearly visible across the panoramic views from the Culsh Monument viewpoint north of New Deer, and in views south from the edge of Maud. There are generally long views across the whole of Section 11 and the route would be visible from the road network across the area and from the Formartine & Buchan Way.	then through the south of the Farmland and Wooded Policies (LCT 21) where the landscape is similarly intensive agriculture, but in an area where the terrain is less distinctly rolling than the core of this LCT. East of the A952, the route enters LCT 17, Coastal Agricultural Plain – again similarly intensive agriculture gently rolling similar to LCT20. The existing OHL is clearly noticeable crossing the generally large scale, open, intensively agricultural landscapes but without substantially affecting its character or becoming a defining feature. A new OHL paralleling this would intensify the effect of OHLs on the landscape but not spread it wider. Visual There is a relatively dense scatter of individual residential properties throughout Route 11B, becoming more separated at the eastern end of the route where the farm holdings appear larger. There are generally long views across the whole of Section 11 and the route would be visible from the road network across the area and from the Formartine & Buchan Way.	character along Route 11C1 being quite subtle. The generally large scale, open, intensively agricultural landscapes crossed by Route 11C1 are likely to be able to absorb its effects in the way that they do the existing OHL on Route 11B, although it would widen the area affected. Visual There is a relatively dense scatter of individual residential properties throughout Route 11C, except at the very western end and becoming more separated at the eastern end of the route where the farm holdings appear larger. There are generally long views across the whole of Section 11 and the route would be visible from the road network across the area and from the Formartine & Buchan Way.	farmed agricultural landscape, except towards the eastern end, where Route 11C2 crosses areas of moss, much of which is under coniferous forestry. The generally large scale, open, intensively agricultural and forested landscapes crossed by Route 11C2 are likely to be able to absorb its effects in the way, although it would widen the area affected. Visual There is a relatively dense scatter of individual residential properties throughout Route 11C, except at the very western end and becoming more separated at the eastern end of the route where the farm holdings appear larger. There are generally long views across the whole of Section 11 and the route would be visible from the road network across the area and from the Formartine & Buchan Way.	farmed agricultural landscape, with the variations in landscape character along Route 11C3 being quite subtle. The generally large scale, open, intensively agricultural landscapes crossed by Route 11C3 are likely to be able to absorb its effects in the way that they do the existing OHL on Route 11B, although it would widen the area affected. Visual There is a relatively dense scatter of individual residential properties throughout Route 11C, except at the very western end and becoming more separated at the eastern end of the route where the farm holdings appear larger. There are generally long views across the whole of Section 11 and the route would be visible from the road network across the area and from the Formartine & Buchan Way.	farmed agricultural landscape, except towards the eastern end, where Route 11C2 crosses areas of moss, much of which is under coniferous forestry. The generally large scale, open, intensively agricultural and forested landscapes crossed by Route 11C4 are likely to be able to absorb its effects in the way, although it would widen the area affected. Visual There is a relatively dense scatter of individual residential properties throughout Route 11C, except at the very western end and becoming more separated at the eastern end of the route where the farm holdings appear larger. There are generally long views across the whole of Section 11 and the route would be visible from the road network across the area and from the Formartine & Buchan Way.
People	Please refer to the Engineering 'Proximity' section of the table for information on Proximity to Dwellings.					
Land Use	Agriculture Route 11A begins within Land Capable of Agriculture Class 3.1. This is land capable of producing consistently high yields of a narrow range of crops and/ or moderate yields of a wider range. The route mostly consists of Class 3.1 and 3.2 land, aside from a small area of Class 4.1 land South of Maud. Forestry This route includes 3.66 ha, broadleaved woodland, 2.98 ha coniferous woodland and 6.64 ha total woodland. Recreation	Agriculture Route 11B runs south of New Deer and begins in Land Capable of Agriculture Class 3.1. It then passes through land at Class 3.2 before returning to Class 3.1. Forestry This route includes 0.72 ha broadleaved woodland, 8.63 ha coniferous woodland and 9.35 ha total woodland. Recreation Route 11B passes through the same core path as Route 11A near Maud. It avoids the core path near Stuartfield. This route impacts on NCN Route 1. This route crosses	Agriculture Route 11C1 begins within Land Capable of Agriculture Class 3.1. The route continues within Class 3.1 and 3.2 land. There is a small area of Class 4.1 land present, east of Arnage. Forestry This route includes 1.87 ha broadleaved woodland, 6.87 ha coniferous woodland and 8.74 ha total woodland. Recreation Route 11C1 passes through the core path running south from Maud and NCN Route 1.	Agriculture Route 11C2 is identical to 11C1 until Lenabo Forest. From here, it extends east of the forest into an area of land Class 5.3. Forestry This route includes 2.09 ha broadleaved woodland, 28.40 ha coniferous woodland and 30.49 ha total woodland. Recreation Route 11C2 passes through the core path running south from Maud and NCN	Agriculture Route 11C3 follows the same corridor as Route 11C1, although it runs south of Knaven instead of north. Forestry This route includes 0.64 ha broadleaved woodland, 3.82 ha coniferous woodland and 4.46 ha total woodland. Recreation Route 11C3 passes through the core path running south from Maud and NCN Route 1. This route crosses	Agriculture Route 11C4 is identical to Route 11C3 until Lenabo Forest. From here, it extends east of the forest into an area of Class 5.3 land. Forestry This route includes 0.46 ha broadleaved woodland, 17.24 ha coniferous woodland and 17.70 ha total woodland. Recreation Route 11C4 passes through the core path running south from Maud and NCN Route 1. This route crosses

Topic	Route 11A	Route 11B	Route 11C1	Route 11C2	Route 11C3	Route 11C4
	Route 11A passes through two core paths, located south of Maud and south of Stuartfield. It also passes through NCN Route 1 which follows the same route of the core path from Maud. This route crosses Formartine & Buchan Way, a long distance route. The area that Route 11A passes through may be used in places for commercial highland sports, such as fishing, stalking and shooting.	Formartine & Buchan Way, a long distance route.	This route crosses Formartine & Buchan Way, a long distance route. The area that Route 11C1 passes through may be used in places for commercial highland sports, such as fishing, stalking and shooting.	Route 1. This route crosses Formartine & Buchan Way, a long distance route. The area that Route 11C2 passes through may be used in places for commercial highland sports, such as fishing, stalking and shooting.	Formartine & Buchan Way, a long distance route. The area that Route 11C3 passes through may be used in places for commercial highland sports, such as fishing, stalking and shooting.	Formartine & Buchan Way, a long distance route. The area that Route 11C4 passes through may be used in places for commercial highland sports, such as fishing, stalking and shooting.
Planning	Route 11A would impact on the application currently in the system for installation of underground cables connecting to New Deer substation. This application is currently awaiting decision. Route 11A also passes through a number of approved applications for new footpaths and dwellings throughout the route boundary. This route is not expected to impact areas sighted for residential or industrial expansion in the Aberdeenshire Local Development Plan. The route passes through woodland protected for the policy for Stuartfield to maintain character of place.	Route 11B would impact on the application currently in the system for installation of underground cables connecting to New Deer substation. This application is currently awaiting decision. Route 11B also follows the entire length of the application for reinforcement of the existing 275 kV OHL, however this is an SSEN Transmission project and therefore not a third party proposal. Route 11B also passes through a number of approved applications for new dwellings throughout the route boundary. This route is not expected to impact areas sighted for residential or industrial expansion in the Aberdeenshire Local Development Plan.	The 'C' Routes would impact on the application currently in the system for installation of underground cables connecting to New Deer substation. This application is currently awaiting decision. The 'C' routes also pass sections of the application for reinforcement of the existing 275 kV OHL, however this is an SSEN Transmission project and therefore not a third party proposal. The 'C' routes also pass through a number of approved applications for new dwellings throughout the route boundary. These routes are not expected to impact areas sighted for residential or industrial expansion in the Aberdeenshire Local Development Plan. The route passes through woodland protected for the policy for Stuartfield to maintain character of place.			
Engineering	<u>Infrastructure Crossings</u> Route 11A crosses four National Grid Transmission pipelines towards Peterhead. There are a number of road crossings including two A-roads, four B-roads, 12 minor roads, two local roads and ten restricted local access roads. <u>Environmental Design</u> Route 11A remains lower than 300 m for its length. Route 11A lies within 10 km of Peterhead coastline, therefore atmospheric pollution may be a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the route.	<u>Infrastructure Crossings</u> Route 11B crosses four National Grid Transmission pipelines towards Peterhead. There are a number of road crossings including two A-roads, three B-roads, 15 minor roads, one local road and seven restricted local access roads. <u>Environmental Design</u> Route 11B remains lower than 300 m for its length. Route 11B lies within 10 km of Peterhead coastline, therefore atmospheric pollution may be a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the	<u>Infrastructure Crossings</u> Route 11C1 crosses four National Grid Transmission pipelines towards Peterhead. Route 11C1 also crosses an existing 275 kV OHL when leaving Node 4. This OHL is in the process of being increased in operating voltage from 275 kV to 400 kV. There are a number of road crossings including two A-roads, two B-roads, 16 minor roads, one local road and eight restricted local access roads. <u>Environmental Design</u> Route 11C1 remains lower than 300 m for its length.	<u>Infrastructure Crossings</u> Route 11C2 crosses four National Grid Transmission pipelines towards Peterhead. Route 11C2 also crosses an existing 275 kV OHL when leaving Node 4. This OHL is in the process of being increased in operating voltage from 275 kV to 400 kV. There are a number of road crossings including two A-roads, two B-roads, 17 minor roads, one local road and ten restricted local access roads. <u>Environmental Design</u>	<u>Infrastructure Crossings</u> Route 11C3 crosses four National Grid Transmission pipelines towards Peterhead. Route 11C3 also crosses an existing 275 kV OHL when leaving Node 4. This OHL is in the process of being increased in operating voltage from 275 kV to 400 kV. There are a number of road crossings including two A-roads, one B-road, 15 minor roads, two local roads and four restricted local access roads. <u>Environmental Design</u>	<u>Infrastructure Crossings</u> Route 11C4 crosses four National Grid Transmission pipelines towards Peterhead. Route 11C4 also crosses an existing 275 kV OHL when leaving Node 4. This OHL is in the process of being increased in operating voltage from 275 kV to 400 kV. There are a number of road crossings including two A-roads, one B-road, 16 minor roads, two local roads and five restricted local access roads. <u>Environmental Design</u>

Topic	Route 11A	Route 11B	Route 11C1	Route 11C2	Route 11C3	Route 11C4
	However, Peterhead is a high-risk site for UXO and additional checks should be carried out for UXO in this region. Ground Conditions The terrain within section 11 is mainly rolling hills and open farmland so no routes have any specific challenges and all are considered to be constructable and accessible from a terrain perspective. The route is not expected to have any peat constraints. Construction and Maintenance Existing access tracks lie within 1 km of the entire route, therefore access is not a great constraint. The route has angle changes and angle towers would be required. Proximity Eight residential buildings lie within 170 m of the route. Over 60 non-residential buildings lie within 170 m of the route. Route 11A has three smaller turbines as part of a local development within a farm known as West Knock Wind Cluster. Limited information is available on these turbines however, based on their power output, they are likely to be smaller and not pose a significant constraint to the proposed route. The route has a BT Fixed Link present. In addition to the four National Grid pipeline crossings mentioned in the Infrastructure Crossings appraisal, the route crosses one medium pressure SGN pipeline. The route passes in close proximity to the urban environments of New Deer, Maud, Stuartfield and Longside.	route. However, Peterhead is a high-risk site for UXO and additional checks should be carried out for UXO in this region. Ground Conditions The terrain within section 11 is mainly rolling hills and open farmland so no routes have any specific challenges and all are considered to be constructable and accessible from a terrain perspective. The route is not expected to have any peat constraints. Construction and Maintenance Existing access tracks lie within 1 km of the entire route, therefore access is not a great constraint. The route has angle changes and angle towers would be required. Proximity 32 residential buildings lie within the route. Over 110 non-residential buildings lie within 170 m of the route. Route 11B has no known wind farms. The route has a BT Fixed Link present. In addition to the four National Grid pipeline crossings mentioned in the Infrastructure Crossings appraisal, the route crosses one medium pressure SGN pipeline. The route passes in close proximity to the urban environment of Longside.	Route 11C1 lies within 10 km of Peterhead coastline, therefore atmospheric pollution may be a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the route. However, Peterhead is a high-risk site for UXO and additional checks should be carried out for UXO in this region. Ground Conditions The terrain within section 11 is mainly rolling hills and open farmland so no routes have any specific challenges and all are considered to be constructable and accessible from a terrain perspective. The route is not expected to have any peat constraints. Construction and Maintenance Existing access tracks lie within 1 km of the entire route, therefore access is not a great constraint. The route has angle changes and angle towers would be required. Proximity Nine residential buildings lie within 170 m of the route. Over 70 non-residential buildings lie within 170 m of the route. Route 11C1 has no known wind farms. The route has a BT Fixed Link present. In addition to the four National Grid pipeline crossings mentioned in the Infrastructure Crossings appraisal, the route crosses one medium pressure SGN pipeline and another intermediate pressure pipeline. The route passes in close proximity to the urban environment of Auchnagatt and Longside.	Route 11C2 remains lower than 300 m for its length. Route 11C2 lies within 10 km of Peterhead coastline, therefore atmospheric pollution may be a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the route. However, Peterhead is a high-risk site for UXO and additional checks should be carried out for UXO in this region. Ground Conditions The terrain within section 11 is mainly rolling hills and open farmland so no routes have any specific challenges and all are considered to be constructable and accessible from a terrain perspective. Route 11C2 has a small area of Class 1 peatland within it. Construction and Maintenance Existing access tracks lie within 1 km of the entire route, therefore access is not a great constraint. The route has angle changes and angle towers would be required. Proximity Seven residential buildings lie within 170 m of the route. Over 50 non-residential buildings lie within 170 m of the route. Route 11C2 has no known wind farms. The route has a BT Fixed Link present. In addition to the four National Grid pipeline crossings mentioned in the Infrastructure Crossings appraisal, the route crosses one medium pressure SGN pipeline and another intermediate pressure pipeline. The route passes in close proximity to the urban environment of Auchnagatt.	Route 11C3 remains lower than 300 m for its length. Route 11C3 lies within 10 km of Peterhead coastline, therefore atmospheric pollution may be a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the route. However, Peterhead is a high-risk site for UXO and additional checks should be carried out for UXO in this region. Ground Conditions The terrain within section 11 is mainly rolling hills and open farmland so no routes have any specific challenges and all are considered to be constructable and accessible from a terrain perspective. The route is not expected to have any peat constraints. Construction and Maintenance Existing access tracks lie within 1 km of the entire route, therefore access is not a great constraint. The route has angle changes and angle towers would be required. Proximity Ten residential buildings lie within 170 m of the route. Over 80 non-residential buildings lie within 170 m of the route. Route 11C3 has no known wind farms. The route has a BT Fixed Link present. In addition to the four National Grid pipeline crossings mentioned in the Infrastructure Crossings appraisal, the route crosses one medium pressure SGN pipeline and another intermediate pressure pipeline.	Route 11C4remains lower than 300 m for its length. Route 11C4 lies within 10 km of Peterhead coastline, therefore atmospheric pollution may be a constraint. There is low risk from UXO and flooding, and no landfill or COMAH sites within the route. However, Peterhead is a high-risk site for UXO and additional checks should be carried out for UXO in this region. Ground Conditions The terrain within section 11 is mainly rolling hills and open farmland so no routes have any specific challenges and all are considered to be constructable and accessible from a terrain perspective. Route 11C4 has a small area of Class 1 peatland within it. Construction and Maintenance Existing access tracks lie within 1 km of the majority of the route, however there is a small section that lies out with 1 km of any access tracks. The route has angle changes and angle towers would be required. Proximity Six residential buildings lie within 170 m of the route. Over 60 non-residential buildings lie within 170 m of the route. Route 11C4 has no known wind farms. The route has a BT Fixed Link present. In addition to the four National Grid pipeline crossings mentioned in the Infrastructure Crossings appraisal, the route crosses one medium pressure SGN pipeline and another intermediate pressure pipeline.

Topic	Route 11A	Route 11B	Route 11C1	Route 11C2	Route 11C3	Route 11C4
					The route passes in close proximity to the urban environment of Auchnagatt and Longside.	The route passes in close proximity to the urban environment of Auchnagatt.
Economic	This is the second lowest cost option and, similar to Route 11B, does not result in any 400 kV OHL crossings (all other options require crossings). The slight increase in cost is attributed to the additional route length of approximately 0.9 km but is relatively small increase.	This is the lowest cost option within Section 11.	Capital costs were roughly 39% higher than the lowest cost option so very close to falling into the 'Red' scoring classification. This increase is predominantly driven by the need for a 400 kV cable dip to cross an existing 400 kV OHL. The twisted nature of the route is also a contributing factor, with all additional towers required for the additional 3.1 km additional route length being tension towers (in comparison to the lowest cost option). These are comparatively much higher cost than suspension towers, increasing the per km cost for construction.	As for Route 11C1, crossing the 400 kV OHL is required. An additional 1.4 km route length is the key differentiator in comparison to Route 11C1. The total capital cost is roughly 45% greater than the lowest cost option.	Route 11C3 is very in close in cost to Route 11C1 with an additional 0.3 km route length and additional low voltage OHL crossings the slight differentiators which pushes the capital cost scoring into the 'Red' classification.	Route 11C4 is the highest cost option, estimated to cost ~52% more than the lowest cost option. It has the longest route length and the requirement to cross the existing 400 kV OHL.

Table 5-22 shows the RAG ratings for Section 11. The Preferred Routes from an environmental perspective are Route 11B and 11C3. Route 11B is marginally preferred as it has the advantage of containing landscape effects to an area already affected by the existing OHL and any views would be in the context of an existing OHL rather than introducing the infrastructure to an area currently without it. Route 11B is also the Preferred Route for Natural Heritage designations as it intersects with the least amount of suitable habitat for wintering geese associated with SPAs within 20 km, and does not contain a Local Nature Conservation Site like Routes 11C1, 11C2 and 11C4. For Habitats, Route 11B is preferred (alongside 11A), as they have less irreplaceable peatland habitat in comparison to the 'C' routes. Overall, Route 11A is least preferred from a landscape perspective, as it would be very intrusive to panoramic views from Culsh Monument viewpoint north of New Deer. It also risks being intrusive south from the edge of Maud.

Within Section 11, the Preferred Route from an engineering perspective is Route 11A. This route passes through mainly arable land with no specific challenges in respect to terrain or ground conditions. The route has a significant number of properties so would require numerous angle structures to navigate this, however certain sections appear to offer multiple alignments that can work around them. There is a constraint as the route approaches Maud and Stuartfield due to the high number of dwellings within close proximity, however again there are multiple alignment options around these areas. Route 11B passes directly through three properties and within 170 m of at least 20 properties due to the narrow route only allowing a close parallel with the existing line. This option is therefore not considered feasible due to the large number of properties that would be affected. All the 11C routes would be required to cross the existing 275 kV OHL which is currently being upgraded to 400 kV. Similar to the other 400 kV crossing discussed in Section 9, this introduces technical challenges relating to maintenance. Due to this, these options are least preferred from an engineering perspective. The routes are also similar in terms of density of residential properties, but not any more challenging compared to Route 11A. Both 11C2 and 11C4 also pass directly through an area of Class 1 peatland on approach to the preferred Peterhead 2 substation location, introducing additional costs and construction challenges.

From both a Capital and Operational cost perspective, Route 11B is favoured, with Route 11A also preferable. Route 11C2, C3 and C4 are least favoured.

On balance, Route 11A has been selected as the Preferred Route. Whilst this route option is least preferred from a landscape perspective, it is preferred from an engineering perspective as it avoids the requirement to cross the existing 275 kV OHL which is currently being upgraded to 400 kV. The environmentally Preferred Route of Route 11B is not considered feasible from an engineering perspective, due to the high number of residential properties that it would pass directly over or in close proximity to.

Table 5-22 RAG Rating for Section 11

	Parameter	Sub-Parameter	Section 11 Route Options					
			Option 11A	Option 11B	Option 11C1	Option 11C2	Option 11C3	Option 11C4
Environment	Natural Heritage	Designations	L	L	M	M	M	M
		Protected Species	L	L	L	L	L	L
		Habitats	M	M	M	M	M	M
		Ornithology	M	M	M	M	M	M
		Geology. Hydrology, Hydrogeology	M	M	M	M	M	M
	Cultural Heritage	Designations	L	L	L	L	L	L
		Cultural Heritage Assets	L	L	L	L	L	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating					
	Landscape and Visual	Designations	L	L	L	L	L	L

	Parameter	Sub-Parameter	Section 11 Route Options					
			Option 11A	Option 11B	Option 11C1	Option 11C2	Option 11C3	Option 11C4
		Landscape Character	M	L/M	L/M	L/M	L/M	L/M
		Visual	M/H	M	M	M	M	M
	Land Use	Agriculture	H	H	H	H	H	H
		Forestry/ Woodland	M	M	M	M	M	M
		Recreation	M	M	M	M	M	M
	Planning	Proposals	M	M	M	M	M	M
Engineering	Infrastructure Crossings	Major Crossings	M	M	H	H	H	H
		Road Crossings	M	M	M	M	M	M
	Topography	Elevation	L	L	L	L	L	L
		Atmospheric pollution	M	M	M	M	M	M
		Contaminated land	M	M	M	M	M	M
		Flooding	L	L	L	L	L	L
	Ground Conditions	Terrain	L	L	L	L	L	L
		Peatland	L	L	L	M	L	M
	Construction / Maintenance	Access	L	L	L	L	L	M
		Angle Towers	M	L	L	L	L	L
	Proximity	Clearance distance to buildings	M	H	M	M	M	M
		Wind farms	L	L	L	L	L	L
		Communication masts	M	M	M	M	M	M
		Urban environments	M	L	L	L	L	L
		Metallic pipelines	M	M	H	H	H	H
Cost	Capital		L	L	M	H	H	H
	Operational		L	L	H	H	H	H

6. PREFERRED ROUTE

Following on from the comparative analysis carried out in Section 5, the Preferred Route can be seen on **Figure 6.1** and comprises:

- Route 1A;
- Route 2A2;
- Route 3B;
- Route 4B;
- Route 5B;
- Route 6C (with 6A1 as back-up);
- Route 7B (with 7A1 as back-up);
- Route 8A1;
- Route 9C2;
- Route 10A; and
- Route 11A.

The RAG Ratings for each of the Preferred Route sections can be seen in **Table 6-1.**

It is important to note that the Preferred Route is preferred based on the outcome of the environmental, engineering and cost analysis, and does not take consultation into account. Once the Public Exhibition events have been held, consultee comments will be considered, which may alter the Preferred Route in Table 6-1 before it is taken forward as the Proposed Route for alignment selection.

Table 6-1 – Preferred Route RAG Ratings

	Parameter	Sub-Parameter	1A	2A2	3B	4B	5B	6C	7B	8A1	9C2	10A	11A
Environment	Natural Heritage	Designations	M	M	M	M	L	M	M	M	M	L	L
		Protected Species	M	M	M	M	M	M	M	M	M	L	L
		Habitats	H	H	H	H	H	H	M	M	M	M	M
		Ornithology	L	L	L	M	L	L	L	L	M	M	M
		Geology. Hydrology, Hydrogeology	M	M	M	M	M	M	M	M	M	M	M
	Cultural Heritage	Designations	H	M	H	L	L	L	L	L	M	L	L
		Cultural Heritage Assets	M	L	L	M	L	L	L	L	H	L	L
	People	Proximity to Dwellings	Refer to Clearance Distance to Buildings RAG Rating										
	Landscape and Visual	Designations	L	L	L	L	L	L	L	M	M	L	L
		Landscape Character	L/M	M/H	L/M	L/M	L/M	L/M	L/M	M	M	L/M	M
		Visual	L/M	M	L/M	L/M	L/M	L/M	L/M	M	M	M	M/H
	Land Use	Agriculture	H	H	L	L	L	L	L	H	H	H	H
		Forestry	H	H	H	H	H	H	H	H	H	M	M
		Recreation	M	M	M	M	M	M	M	M	M	M	M
	Planning	Proposals	H	M	L	L	H	L	M	M	M	M	M
Engineering	Infrastructure	Major Crossing	M	M	L	M	M	L	L	M	H	L	M
		Road Crossing	L	L	L	L	L	L	L	M	M	L	M
	Topography	Elevation	L	L	L	M	L	M	L	L	L	L	L

	Parameter	Sub-Parameter	1A	2A2	3B	4B	5B	6C	7B	8A1	9C2	10A	11A
		Atmospheric pollution	M	M	M	L	L	L	L	M	L	L	M
		Contaminated land	L	L	L	L	L	M	L	L	L	L	M
		Flooding	L	M	L	L	L	L	L	M	L	L	L
	Ground Conditions	Terrain	L	L	L	M	L	M	M	L	L	L	L
		Peatland	L	L	L	M	M	M	L	L	L	L	L
	Construction / Maintenance	Access	L	L	L	M	M	M	M	L	L	L	L
		Angle Towers	M	L	L	M	M	M	M	L	L	M	M
	Proximity	Clearance distance to buildings	M	M	M	L	M	L	L	M	M	M	M
		Wind farms	L	L	L	L	H	H	H	L	L	L	L
		Communication masts	L	L	L	L	L	M	L	M	L	L	M
		Urban environments	L	H	L	L	L	L	L	L	L	L	M
		Metallic pipelines	L	L	L	L	L	L	L	M	L	L	M
Cost	Capital		M	L	L	L	H	M	L	L	L	L	L
	Operational		M	L	L	M	H	M	L	L	M	L	L

7. CONSULTATION ON THE PROPOSALS

SSEN Transmission places great importance on, and is committed to, consultation and engagement with all parties, or stakeholders, likely to have an interest in proposals for new projects such as this. Stakeholder consultation and engagement is an essential part of an effective development process.

7.1 Questions for Consideration by Consultees

When providing your comments and feedback, SSEN Transmission would be grateful for your consideration of the questions below:

- Have we explained the need for this project adequately?
- Have we explained the approach taken to select the Preferred Route adequately?
- Are there any factors, or environmental features, that you consider may have been overlooked during the Preferred Route selection process?
- Do you feel, on balance, that the Preferred Route selected is the most appropriate for further consideration at the alignment selection stage?

7.2 Next Steps

Consultation events will be held as detailed in the preface of this document. The responses received from these consultation events, and those sought from statutory consultees and other key stakeholders, will inform further consideration of the routes put forward, and the confirmation of the Proposed Route to take forward to the next stage in the route process (alignment selection).

All comments are requested by Friday 9th June 2023. A Report on Consultation will be published after the consultation period has ended, which will document the consultation responses received, and the decisions made in light of these responses.

Following the identification and confirmation of a Proposed Route, further technical and environmental surveys (e.g. Phase 1 Habitat / National Vegetation Classification (NVC) surveys, Protected Species Surveys, peat surveys and further input by landscape, ecology, cultural heritage, hydrology and forestry specialists) will be undertaken to identify a Preferred Alignment.

Consultation on a Preferred Alignment is expected to take place in late 2023.

APPENDIX A – HEAT MAP DATA

SSE Themes	Name	Additional Information	Weighting
Natural Heritage	Special Areas of Conservation (SAC)	Reduce to HIGH if unavoidable Can go over constraint if less than 350 m wide	**Exclusion**
Natural Heritage	SAC 200 m buffer		M
Natural Heritage	Special Protection Areas (SPA)	Reduce to HIGH if unavoidable	**Exclusion**
Natural Heritage	SPA 200 m buffer		H
Natural Heritage	SPA 500 m buffer		M
Natural Heritage	Ramsar	Reduce to HIGH if unavoidable	**Exclusion**
Natural Heritage	Ramsar 200 m buffer		H
Natural Heritage	Ramsar 500 m buffer		M
Natural Heritage	National Nature Reserves	Reduce to HIGH if unavoidable	**Exclusion**
Natural Heritage	National Nature Reserves 200 m buffer		M
Natural Heritage	Sites of Special Scientific Interest (SSSI)		H
Natural Heritage	SSSI 200 m buffer		M
Natural Heritage	Local Nature Reserves		M
Natural Heritage	Local Nature Reserves 100 m buffer		L
Natural Heritage	Local Nature Conservation Site		M
Natural Heritage	Local Nature Conservation Site 100 m buffer		L
Natural Heritage	RSPB Reserves		H
Natural Heritage	RSPB Reserves 500 m buffer		M
Natural Heritage	Important Bird Areas		H
Natural Heritage	Important Bird Areas 500 km buffer		M
Natural Heritage	Native Woodland		H
Natural Heritage	Native Woodland 50 m Buffer		M
Natural Heritage	Nearly Native Woodland		M
Natural Heritage	Ancient Woodland (Planted Ancient Woodland Site)	Reduce to HIGH if unavoidable	**Exclusion**
Natural Heritage	Ancient Woodland (Semi-Natural Origin)	Reduce to HIGH if unavoidable	**Exclusion**
Natural Heritage	Ancient Woodland (Semi-Natural Origin) 50 m Buffer		M
Natural Heritage	Ancient Woodland (LEPO and Other Roy)		M

SSE Themes	Name	Additional Information	Weighting
Natural Heritage BNG	NatureScot Prioirty Peatland Habitat - Class 1	Reduce to HIGH if unavoidable. Can go over constraint if less than 350 m wide	**Exclusion**
Natural Heritage BNG	NatureScot Prioirty Peatland Habitat - Class 2	Can go over constraint if less than 350 m wide	H
Cultural Heritage	Scheduled Monuments (Scotland)		**Exclusion**
Cultural Heritage	Scheduled Monuments (Scotland) 250 m Buffer		M
Cultural Heritage	Listed Buildings Category A and 10 m buffer		**Exclusion**
Cultural Heritage	Listed Buildings Category A 250 m buffer		M
Cultural Heritage	Listed Buildings Category B & C and 10 m buffer		M
Cultural Heritage	Listed Buildings Category B & C, 250 m buffer		L
Cultural Heritage	"Properties in Care" and 10 m buffer		**Exclusion**
Cultural Heritage	"Properties in Care", 250 m buffer		M
Cultural Heritage	Gardens and Designed Landscapes		**Exclusion**
Cultural Heritage	Gardens and Designed Landscapes 250 m Buffer		M
Cultural Heritage	Battlegrounds		**Exclusion**
Cultural Heritage	Battlegounds 250 m Buffer		M
Cultural Heritage	Conservation areas		M
People	Settlements buffer of 200 m	Settlement definition based on property density	H
People	Residential dwelling, Educational, medical & worship & buffer 100 m		**Exclusion**
People	Residential dwelling, Educational, medical & worship & buffer 170 m		M
Landscape	National Scenic Areas		**Exclusion**
Landscape	NSA 2 km buffer		L
Landscape	NSA 1 km buffer		M
Landscape	National Park		**Exclusion**
Landscape	National Park 2 km buffer		L
Landscape	National Park 1 km buffer		M
Landscape	Wild Land		**Exclusion**
Landscape	Local landscape Areas (Special Landscape Areas)		M
Land use	Airports		**Exclusion**
Land use	Airports including buffer provided by NATS		H
Land use	Wind Turbines (Aberdeenshire)	Data-set uses boundaries of Wind farms applications not turbine locations	**Exclusion**
Land use	Wind turbines and 3x rotor diameter buffer (Highland and Moray)	Data-set uses turbine locations	**Exclusion**

SSE Themes	Name	Additional Information	Weighting
Land use	Solar Farms (Existing), 250 m buffer		H
Land use	Agricultural land - BMV (Grades 1,2,3.1,3.2)		L
Land use	Golf Courses		M
Land use	Country Parks		M
Land use	Buildings (other than dwellings e.g. retail, industrial estates) and buffer 100 m	Sub-category is 'Retail' or 'Industrial Applicable to manufacturing, engineering, maintenance, storage / wholesale distribution and extraction sites'	L
Land use	Inland waterways	Can go over constraint if less than 350 m wide	**Exclusion**
Engineering	Land over 150 m AOD		L
Engineering	Land over 250 m AOD		M
Engineering	Land over 350 m AOD		H
Engineering	Land over 450 m AOD		**Exclusion**
Engineering	Slopes steeper than 20% over 100 m	Can go over constraint if less than 350 m wide	H
Engineering	Slopes steeper than 10% over 100 m	Can go over constraint if less than 350 m wide)	M
Engineering	Existing transmission network 400 kV and 75 m buffer from OHL centreline		H
Engineering	Existing transmission network 275 kV 75 m buffer from OHL centreline		H
Engineering	Existing transmission network 132 kV 50 m buffer from OHL centreline		M
Engineering	Roads	Can go over constraint if less than 350 m wide	H
Engineering	Railway Stations		H
Engineering	Rail Network 75 m buffer	Can go over constraint if less than 350 m wide	H
Engineering	Coastal offset of 10 km		L
Engineering	Landfill, 100 m buffer	Can go over constraint if less than 350 m wide	H
Opportunities	Attractors - parallel to existing 275 / 400 kV OHL routes at a distance of 75 to 150 m,	Visual and bird strike benefits. For benefits the towers need to be in line otherwise visually confusing.	H
Opportunities	Attractor - Dual carriageway roads at a distance of 75 m to 150 m from the road	visual and benefits	M

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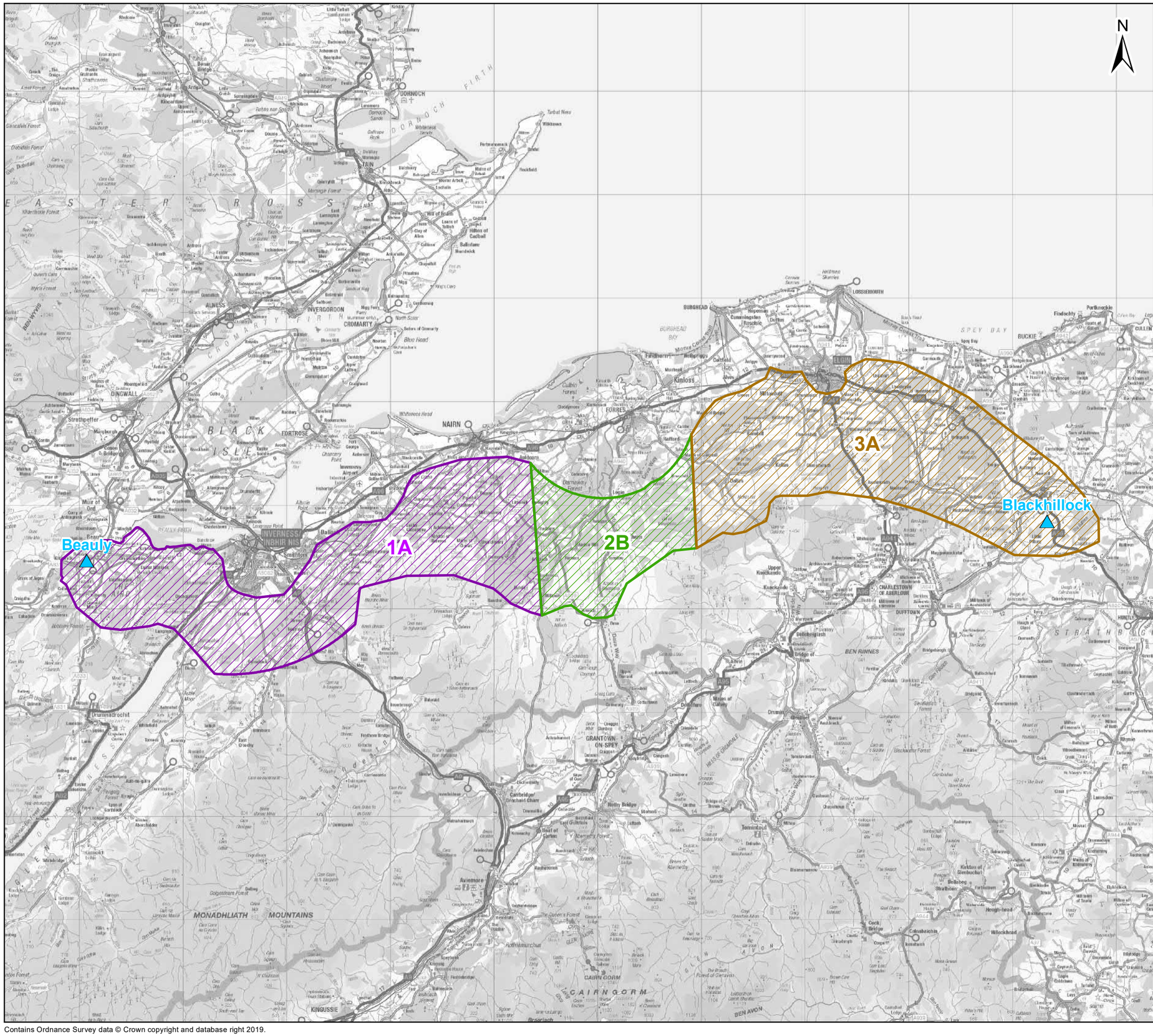

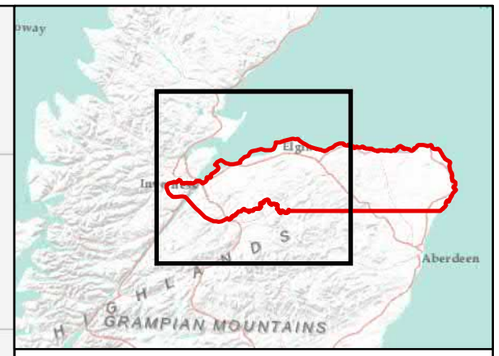

Legend

- Existing Substation

Proposed Corridors

- 1A
- 2B
- 3A

0 5 10 15 km

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly - Blackhillock - Peterhead 400kv OHL

Title: Figure 3.1: Beauly to Blackhillock Proposed Corridors

Date: 03/04/2023 Scale: 350,000 @ A3

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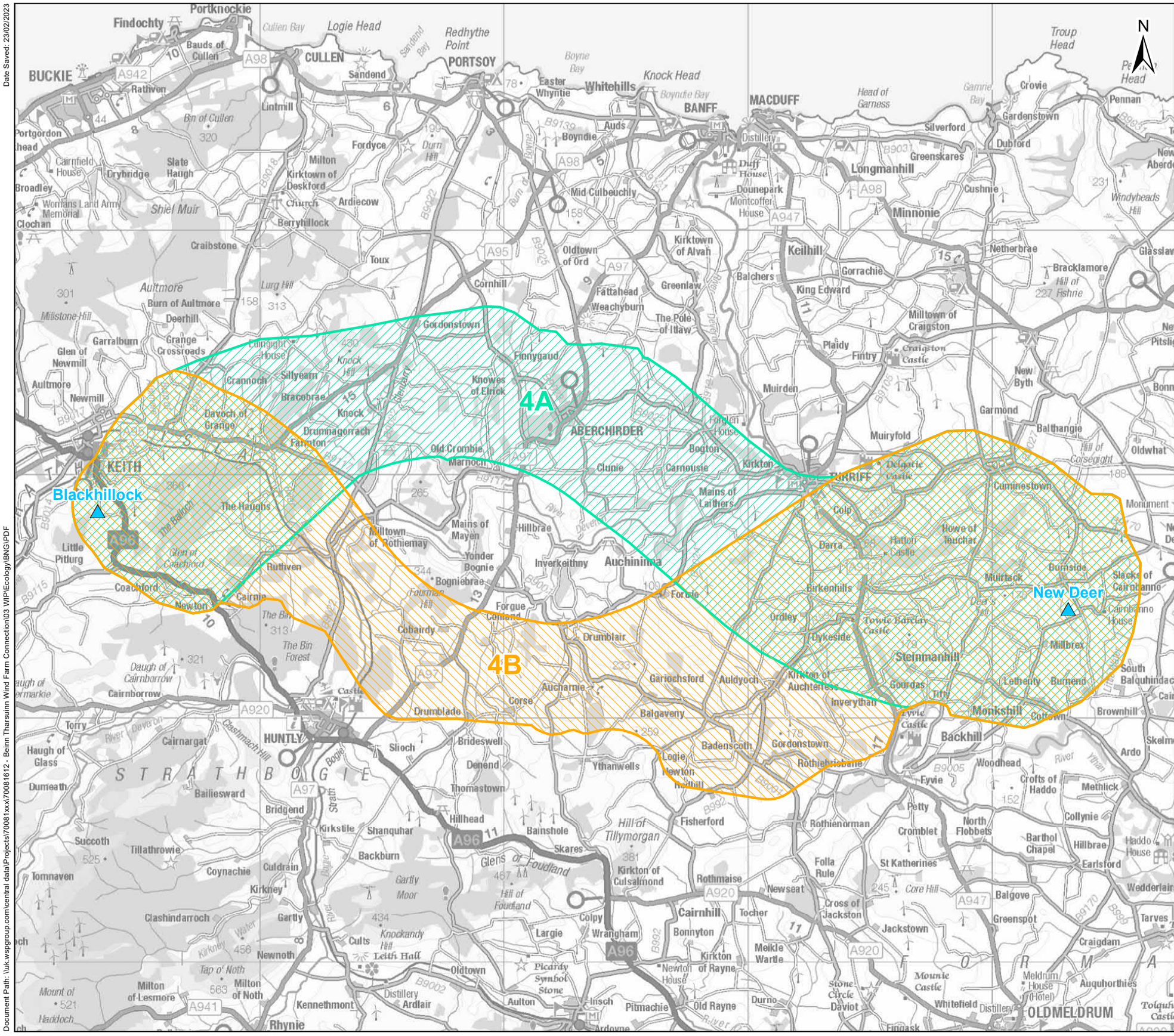

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- Existing Substation

Proposed Corridors

- 4A
- 4B

0 2 4 6 km

Client: Scottish & Southern Electricity Networks TRANSMISSION

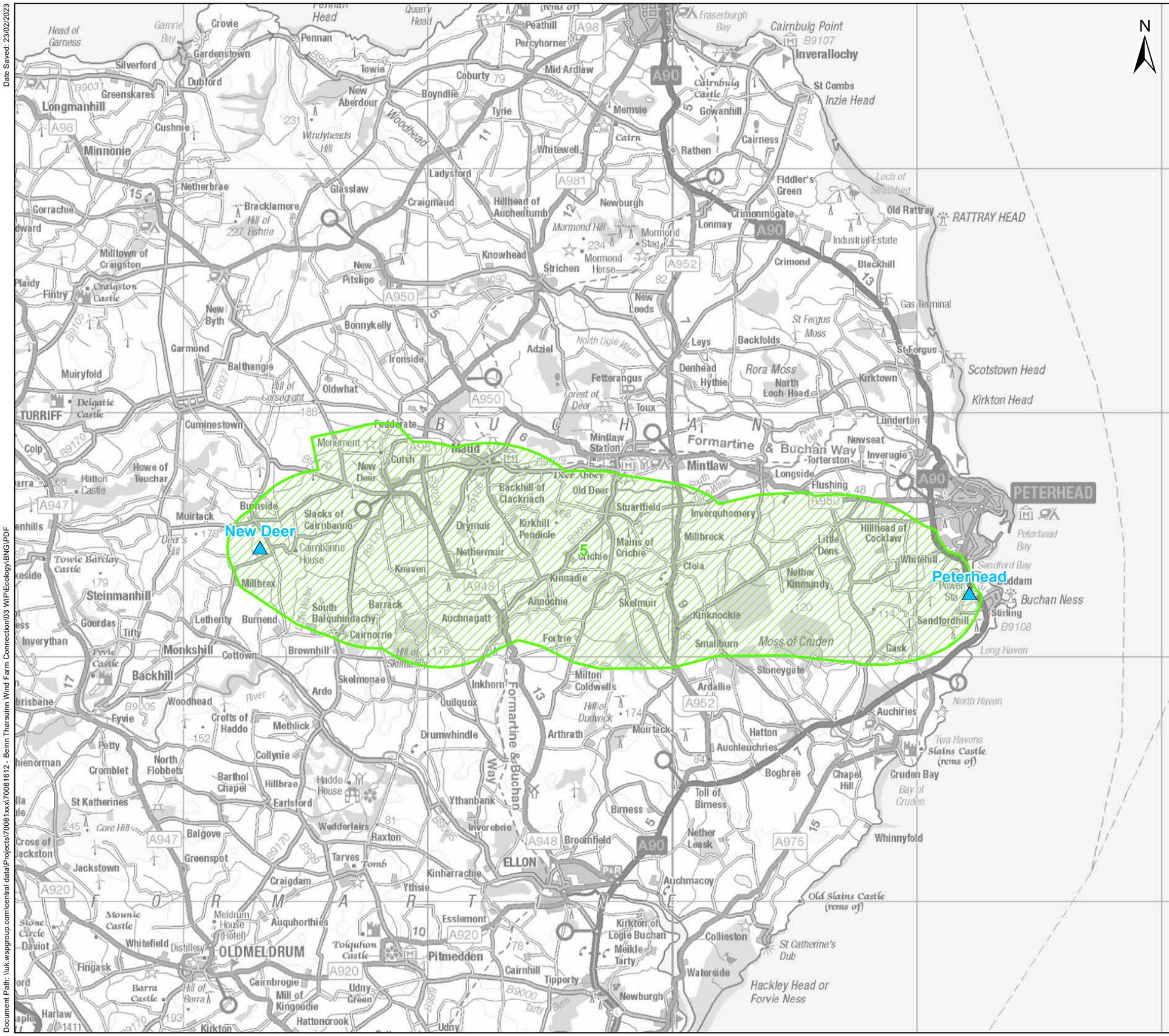
Project: Beauly - Blackhillock - Peterhead 400kv OHL

Title: Figure 3.2 - Blackhillock to New Deer Proposed Corridors

Date: 23/02/2023 Scale: 150,000 @ A3

Drawn: AS Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380-021



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▲ Existing Substation

Proposed Corridors

▨ 5

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly - Blackhillock - Peterhead 400kv OHL

Title: Figure 3.3 - New Deer to Peterhead Proposed Corridors

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Approved: SM
Drawing Number: B2P-WSP-DA-70092380-022

Date Saved: 23/02/2023

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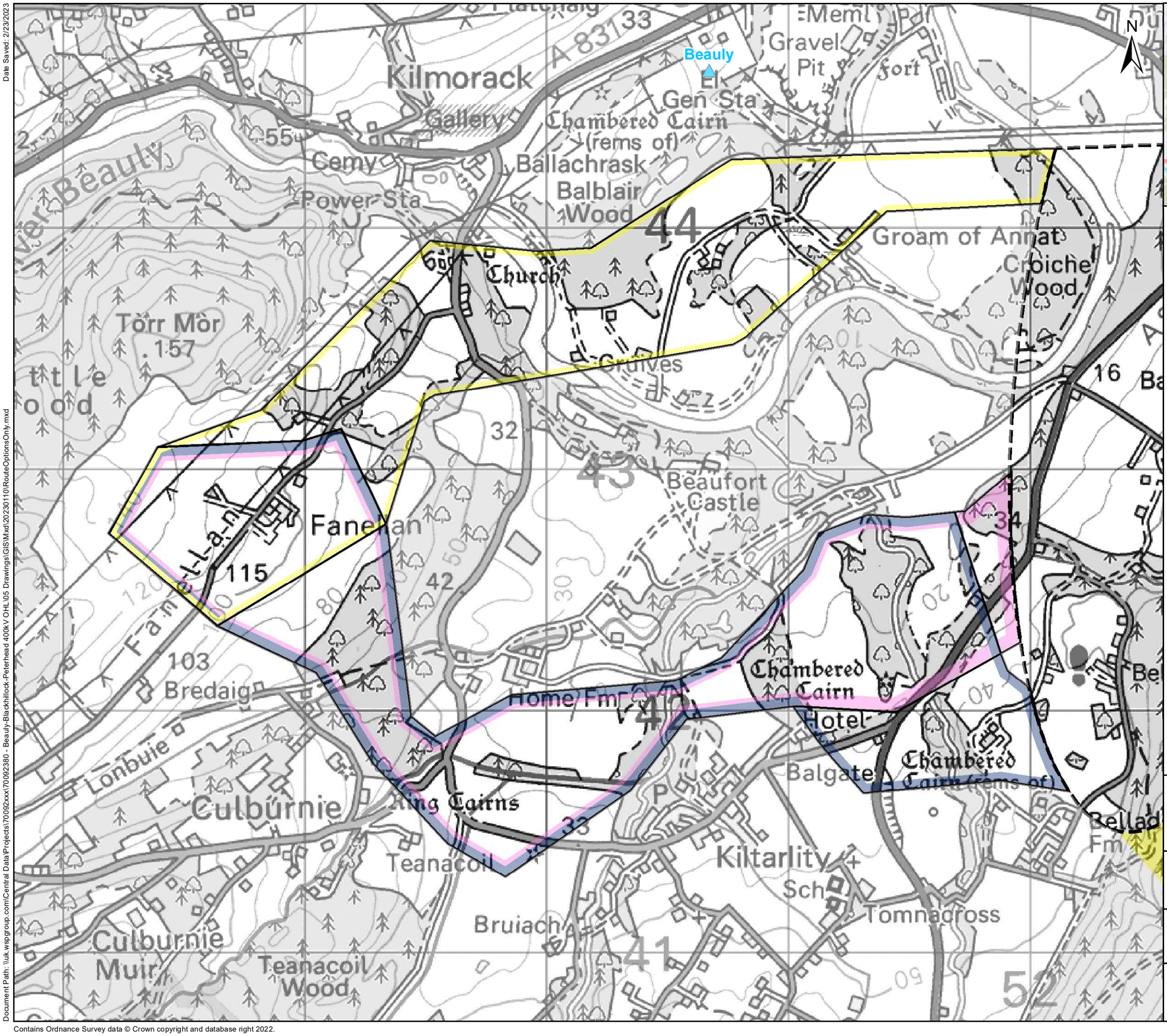

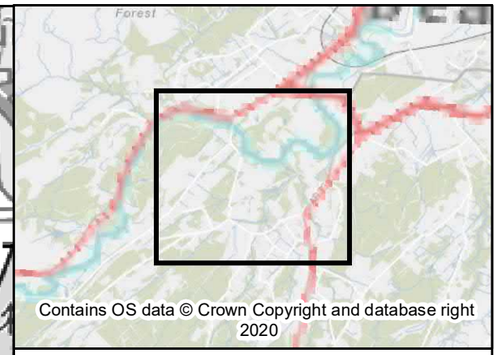

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- Existing Substation

Route Options

- 1A
- 1B1
- 1B2
- Node

0 0.5 1

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
Page 1 of 11

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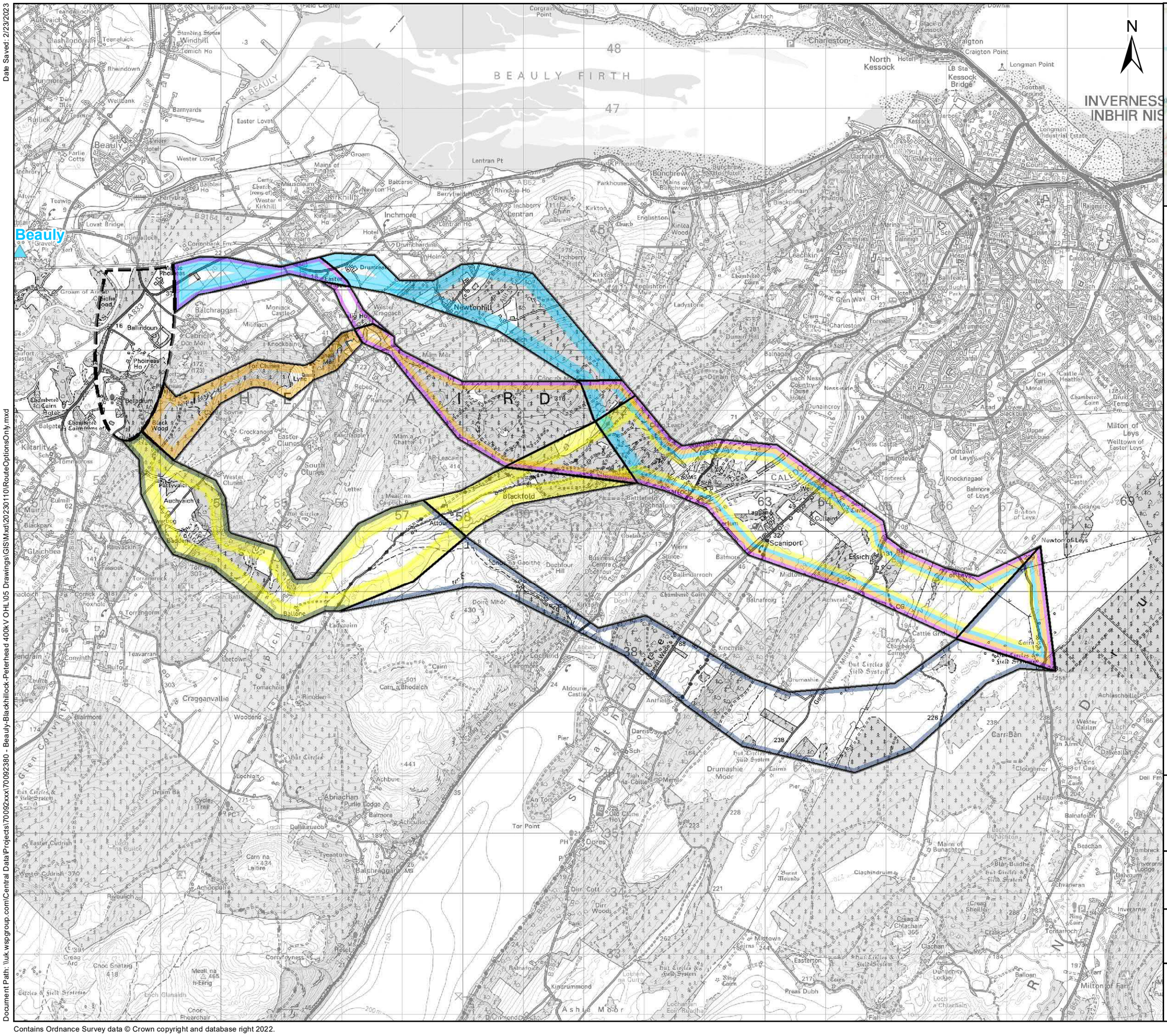

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Legend

- Existing Substation

Route Options

- 2A1
- 2A2
- 2B
- 2C1
- 2C2
- Node

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
Page 2 of 11

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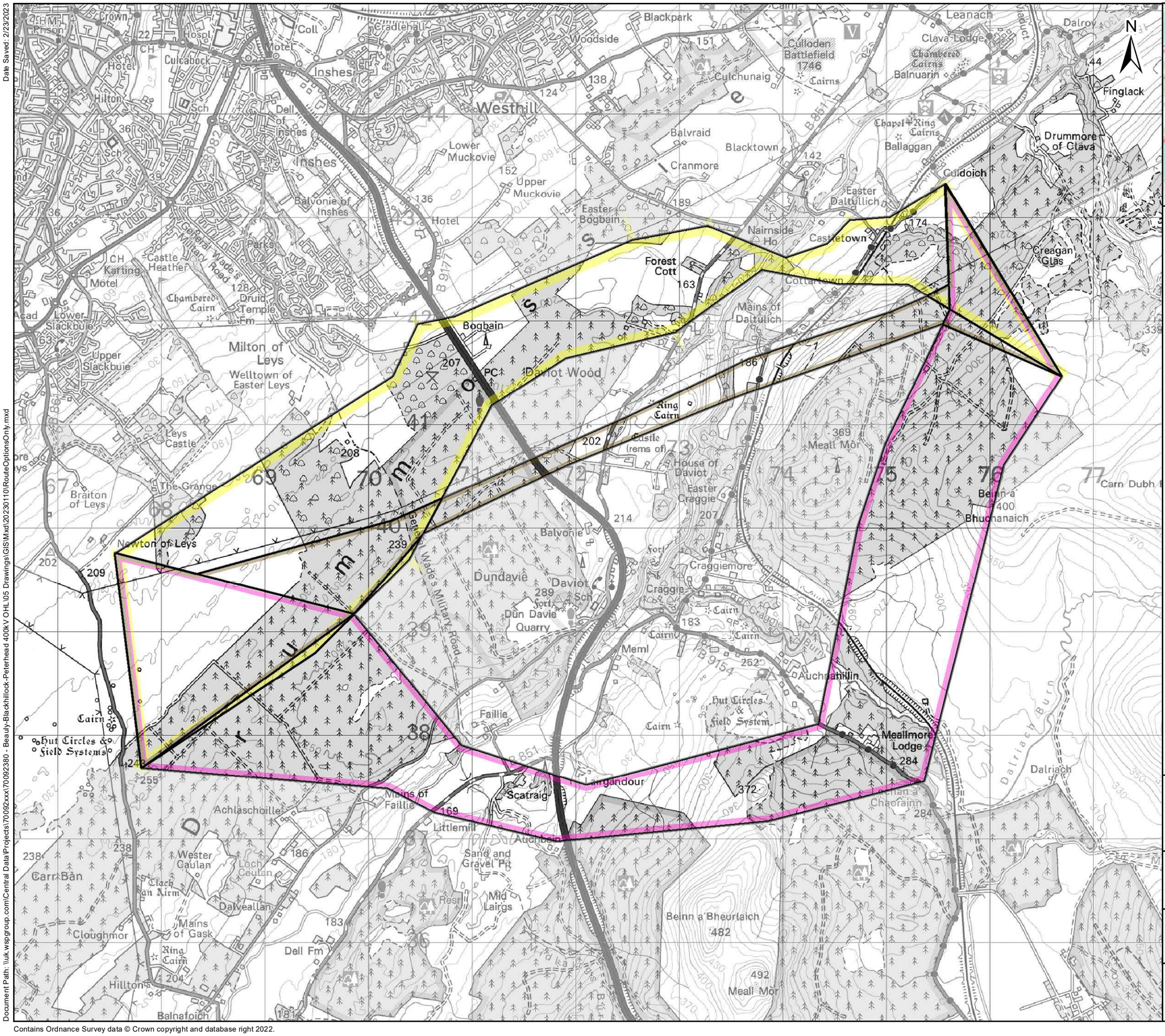

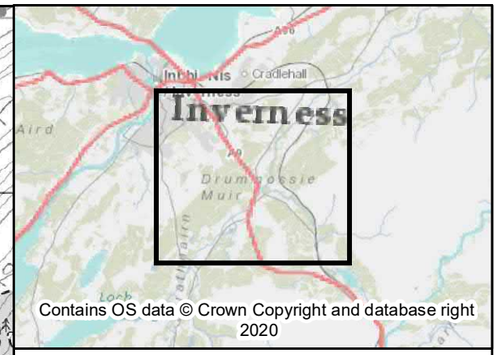

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Route Options

- 3A
- 3B
- 3C

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
Page 3 of 11

Date: 2/23/2023 Scale: 35,000 @ A3

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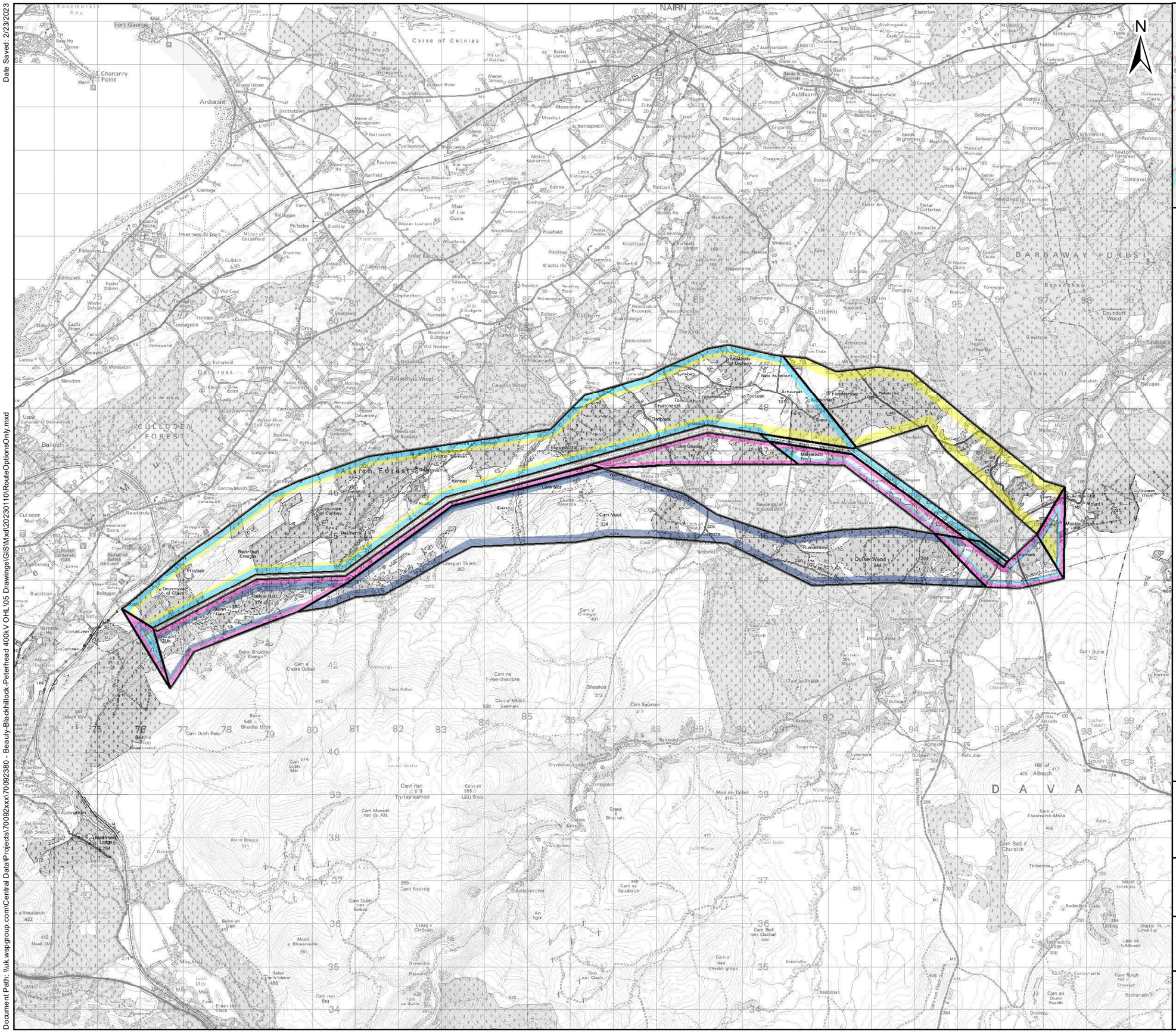

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Route Options

- 4A1
- 4A2
- 4B
- 4C

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
Page 4 of 11

Date: 2/23/2023 Scale: 85,000 @ A3

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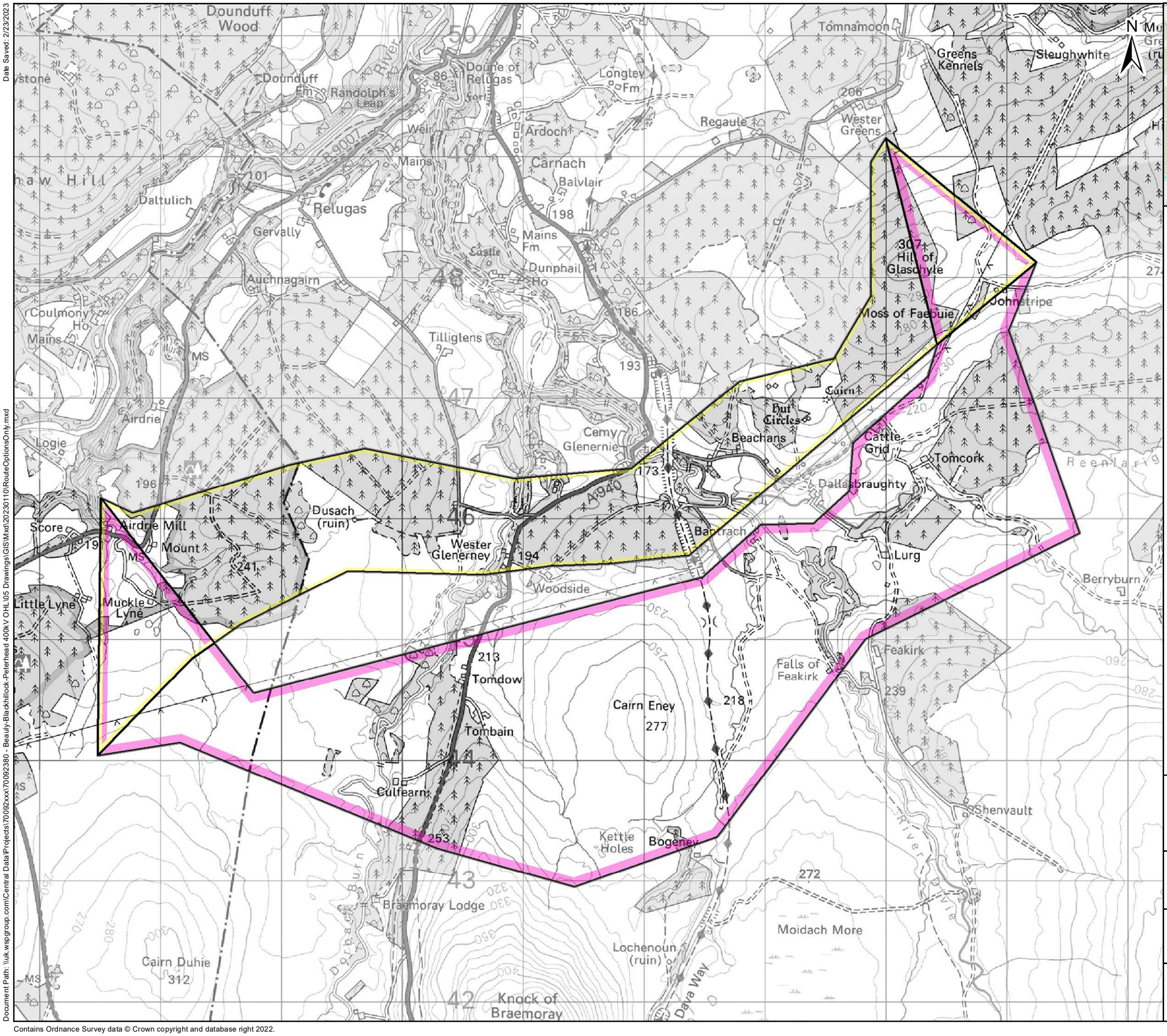

Legend

Route Options

- 5A
- 5B

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
Page 5 of 11

Date: 2/23/2023 Scale: 30,000 @ A3
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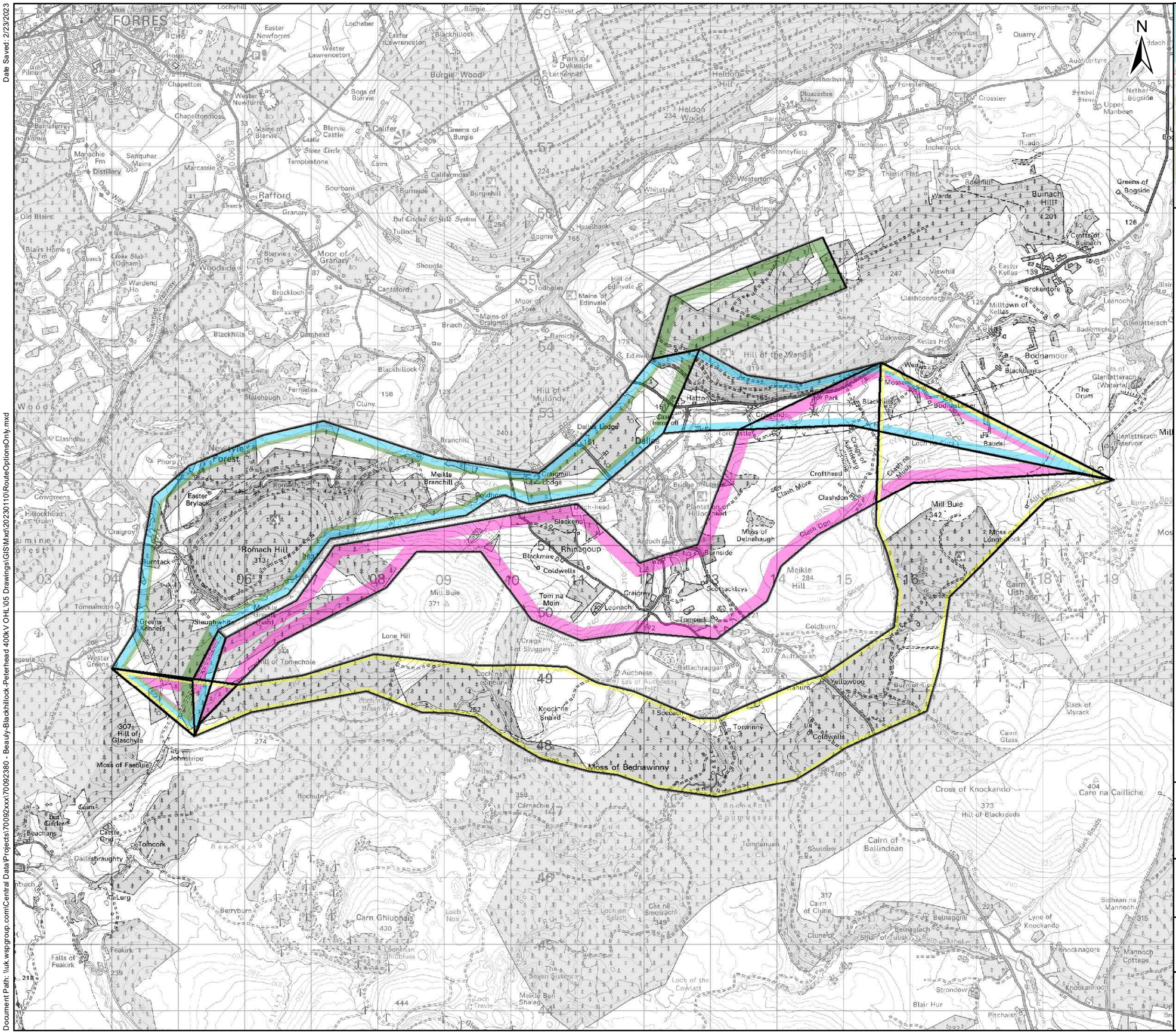
Date Saved: 2/23/2023



Legend

Route Options

- 6A1
- 6A2
- 6B
- 6C

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
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Date: 2/23/2023 Scale: 55,000 @ A3

Drawn: AS Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

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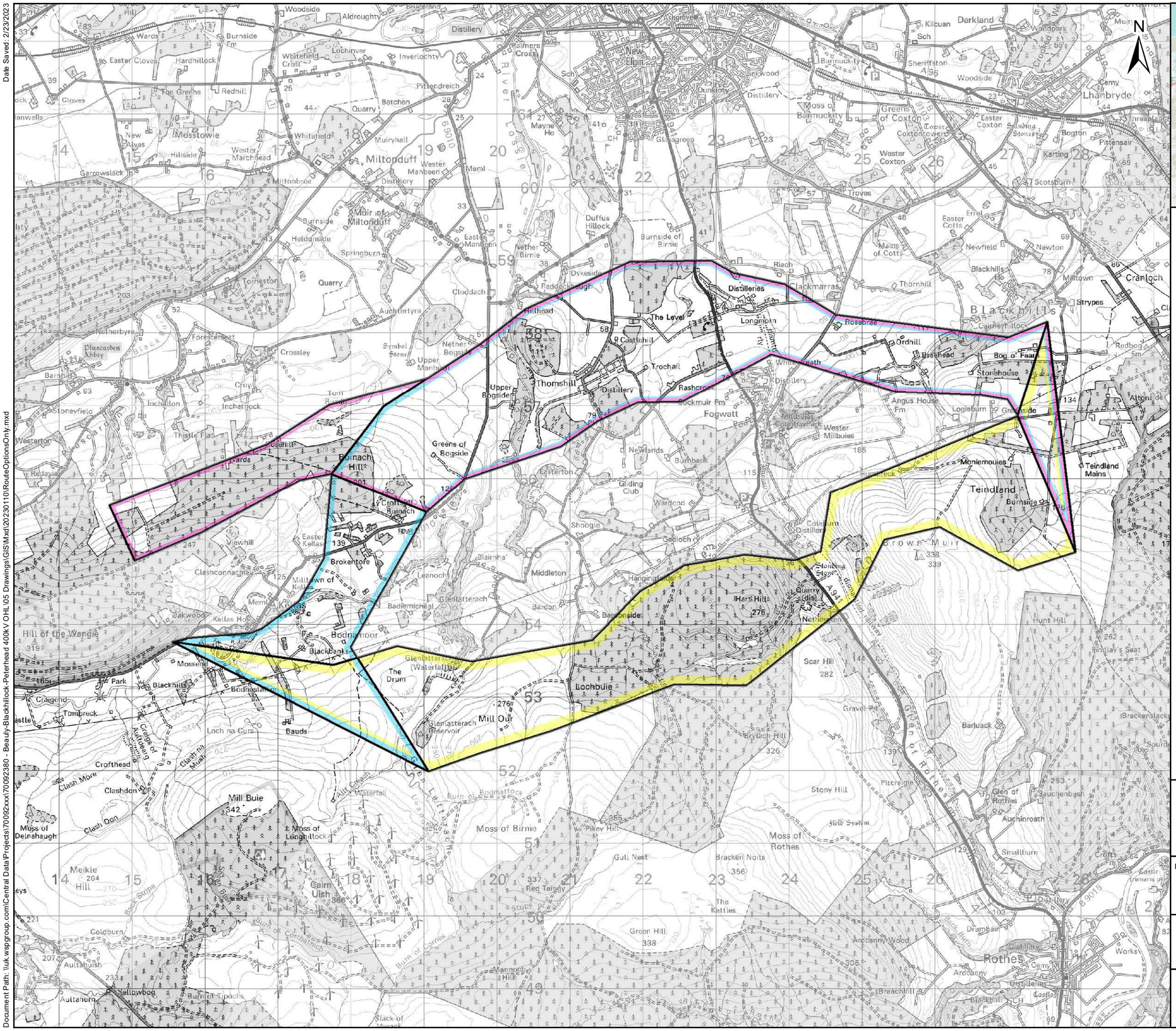

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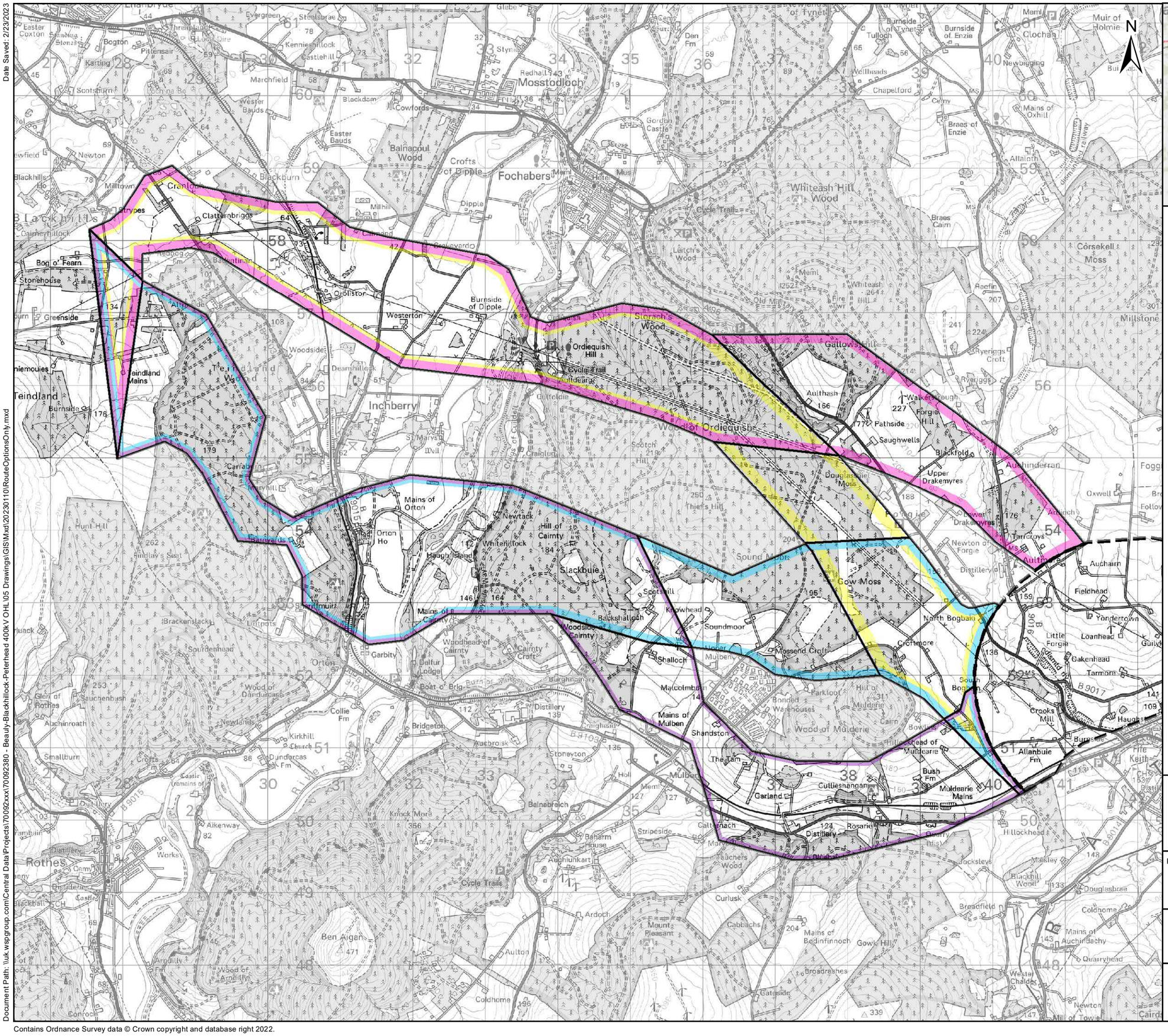
Date Saved: 2/23/2023



Legend

Route Options

- 8A1
- 8A2
- 8B1
- 8B2
- Node

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
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Date: 2/23/2023 Scale: 50,000 @ A3
Drawn: AS Checked: IM Approved: SM
Drawing Number: B2P-WSP-DA-70092380

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Date Saved: 2/23/2023

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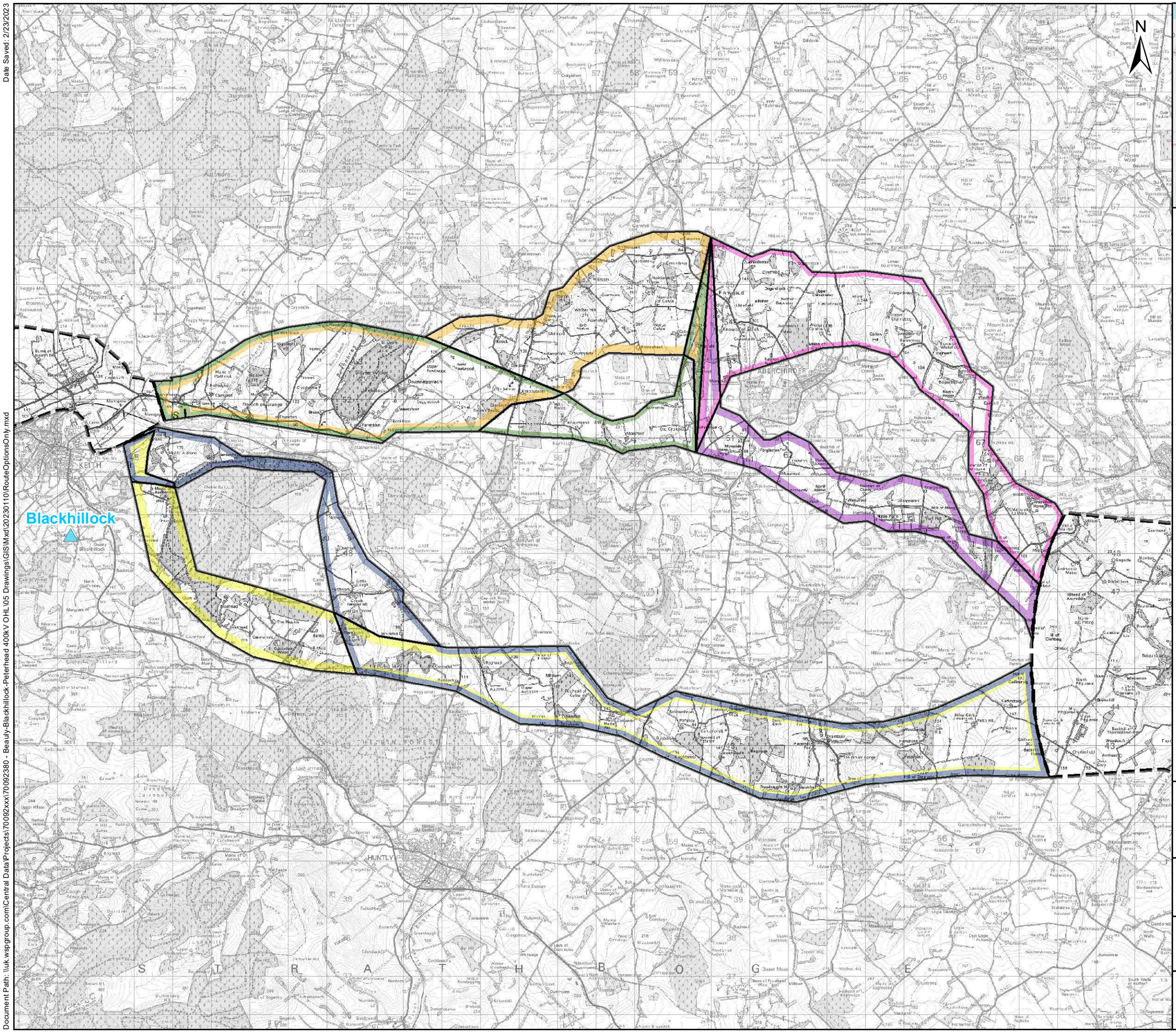

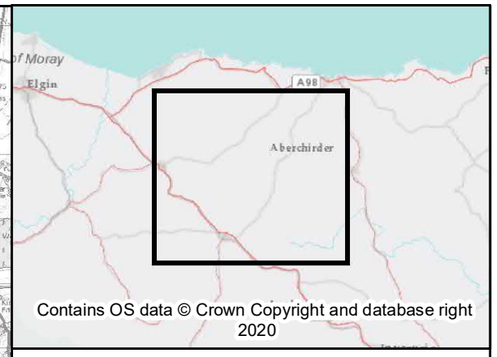

Legend

- Existing Substation

Route Options

- 9A1
- 9A2
- 9B1
- 9B2
- 9C1
- 9C2
- Node

0 1 2
Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
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Date: 2/23/2023 Scale: 95,000 @ A3
Drawn: AS Checked: IM Approved: SM
Drawing Number: B2P-WSP-DA-70092380

Date Saved : 2/23/2023

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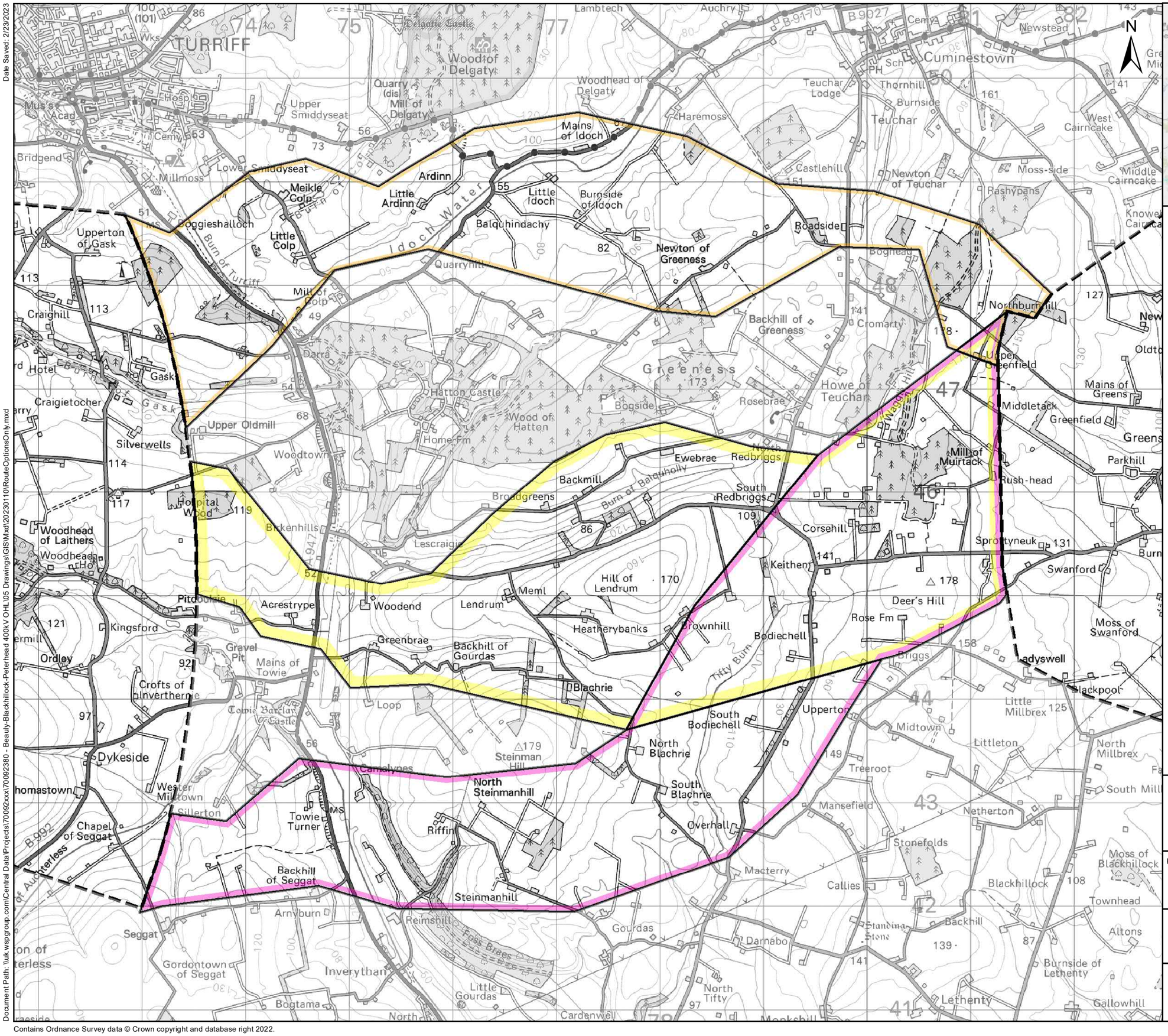

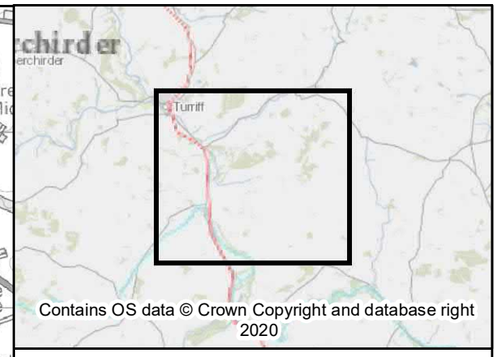

Legend

Route Options

- 10A
- 10B
- 10C
- Node

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options
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Date: 2/23/2023 Scale: 35,000 @ A3

Drawn: AS Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved : 2/23/2023

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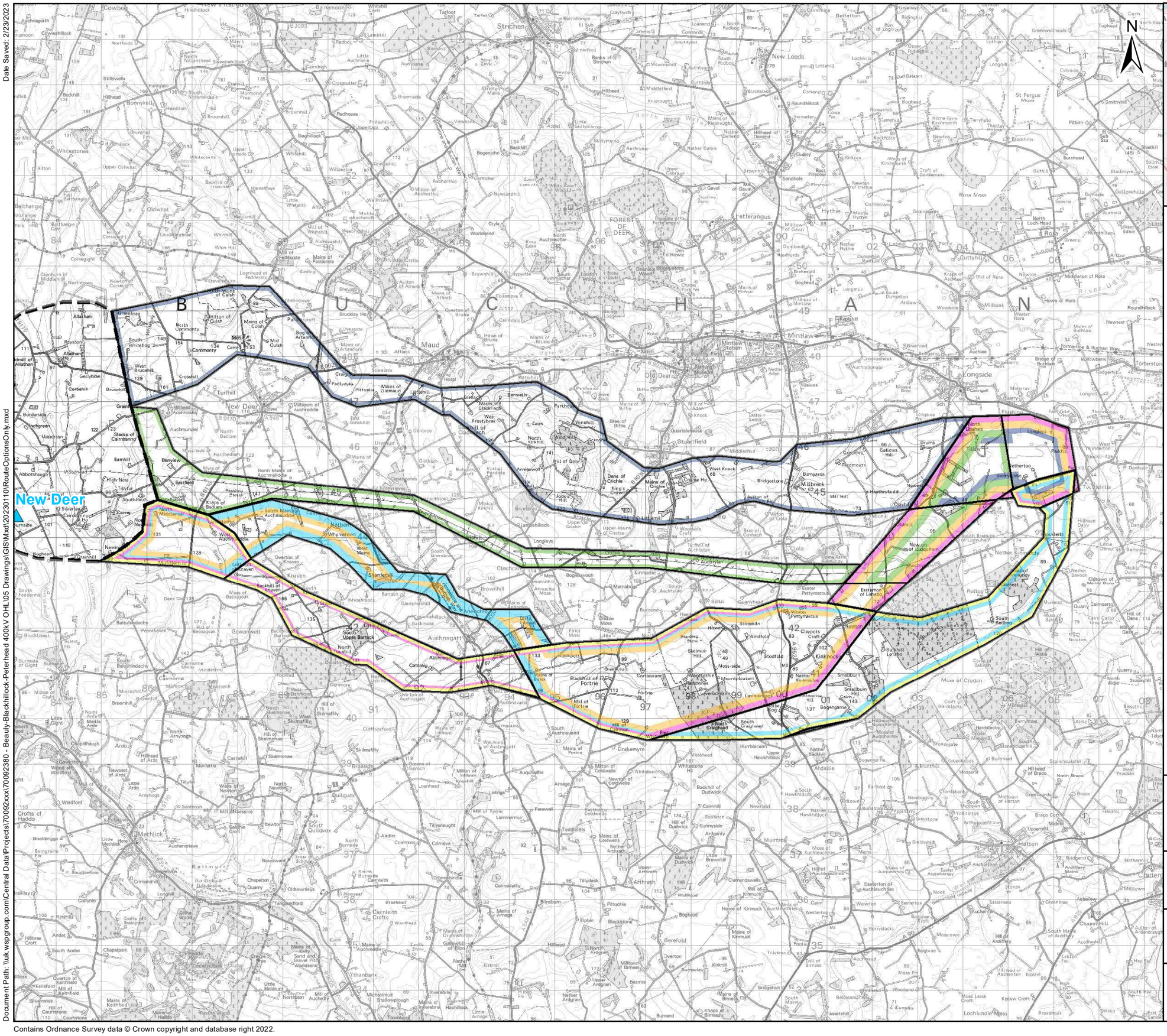

Legend

- Existing Substation

Route Options

- 11A
- 11B
- 11C1
- 11C2
- 11C3
- 11C4
- Node

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 4.1 - Route Options Page 11 of 11

Date: 2/23/2023 Scale: 80,000 @ A3

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Drawing Number: B2P-WSP-DA-70092380

Date Saved: 1/31/2023

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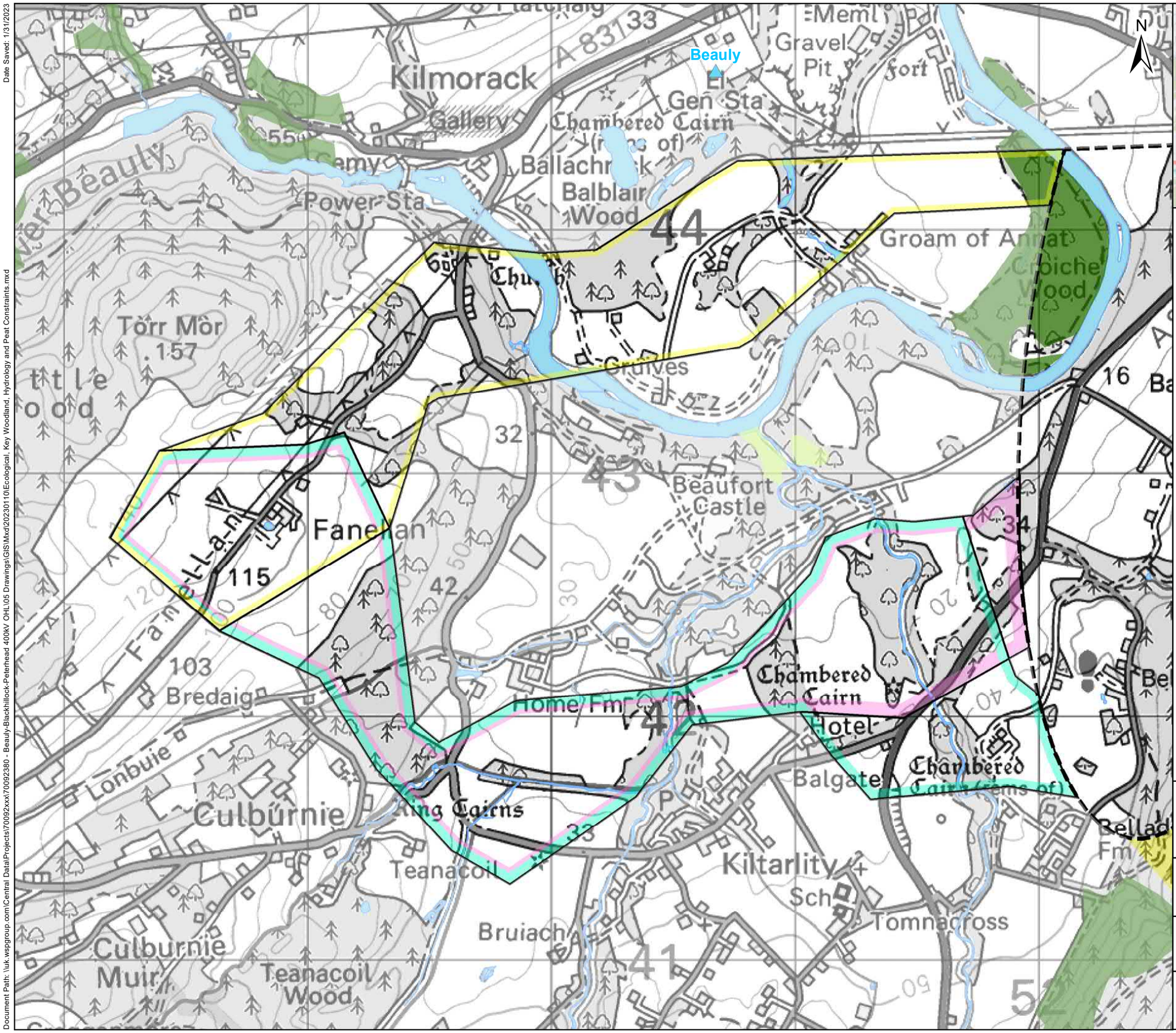

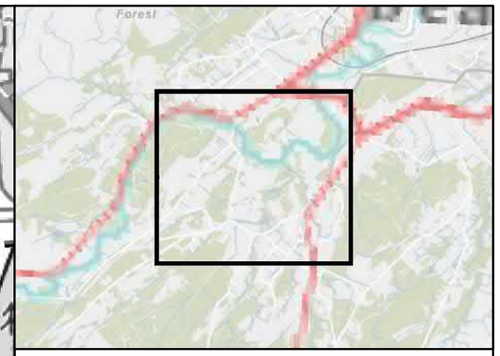

Legend

- Existing Substation

Route Options

- 1A
- 1B1
- 1B2
- Node

Constraints

- Inland waterway

Ancient Woodland

- 1a - Semi-Natural
- 2a - Semi-Natural

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints Page 1 of 11

Date: 1/31/2023 Scale: 15,000 @ A3

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Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/6/2023

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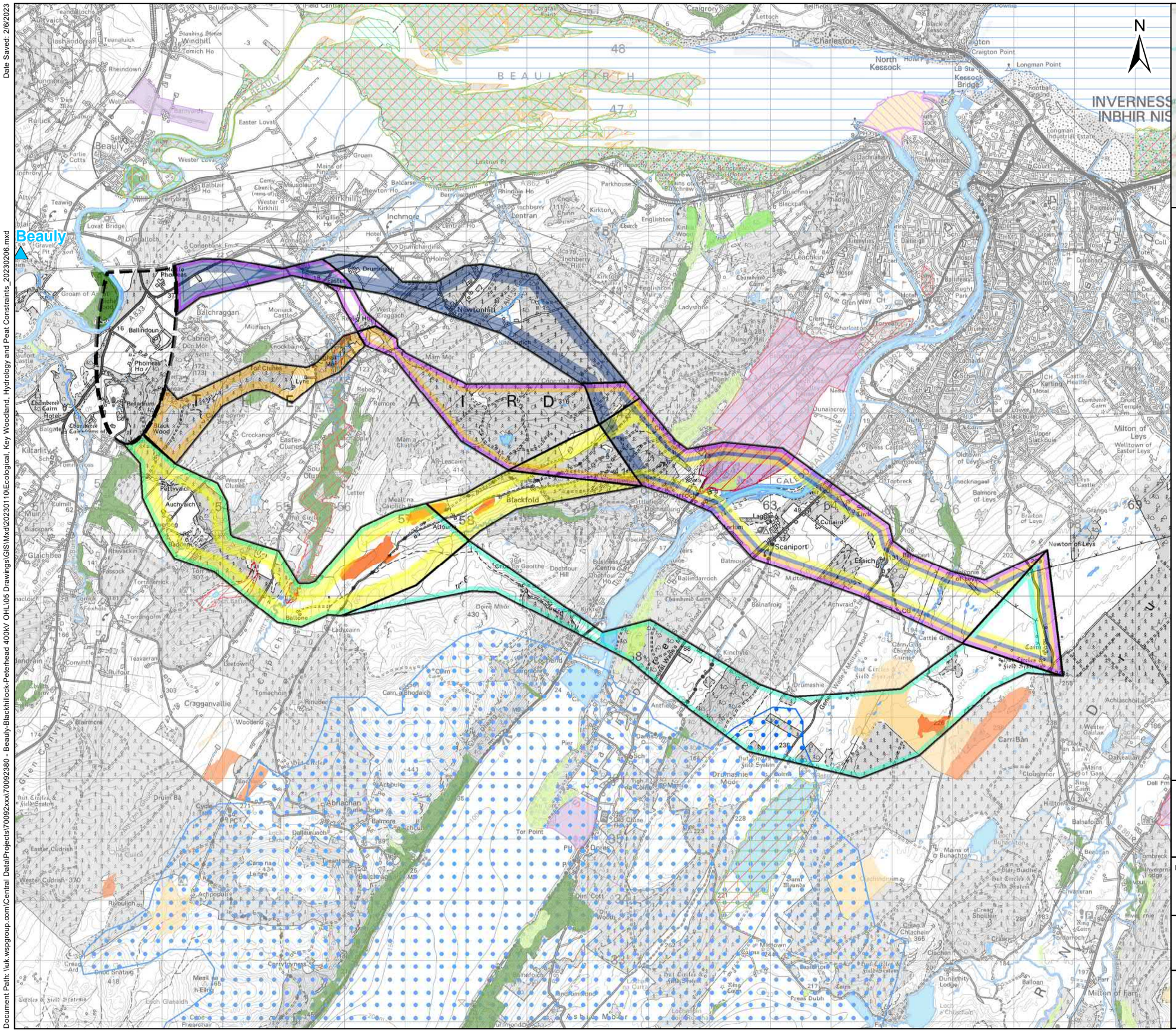

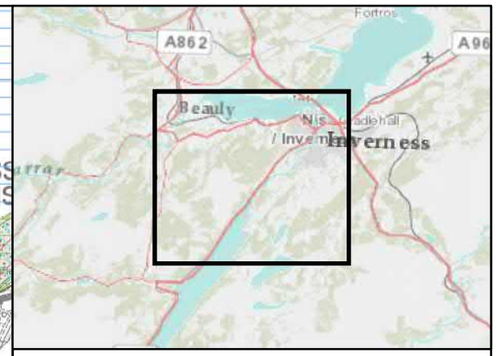

Legend

- Existing Substation

Route Options

- 2A1
- 2A2
- 2B
- 2C1
- 2C2
- Node

Constraints

- Inland waterway
- Drinking Water Protected Areas (Surface Water)
- Geological Conservation Review Sites
- NatureScot Prioirty Peatland Habitat - Class 1
- NatureScot Prioirty Peatland Habitat - Class 2
- Local Nature Reserve
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Important Bird Area
- Ramsar
- Local Nature Conservation Site

Ancient Woodland

- 1a - Semi-Natural
- 1b - Long-established woodlands of plantation origin (LEPO)
- 2a - Semi-Natural

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints Page 2 of 11

Date: 2/6/2023 Scale: 60,000 @ A3

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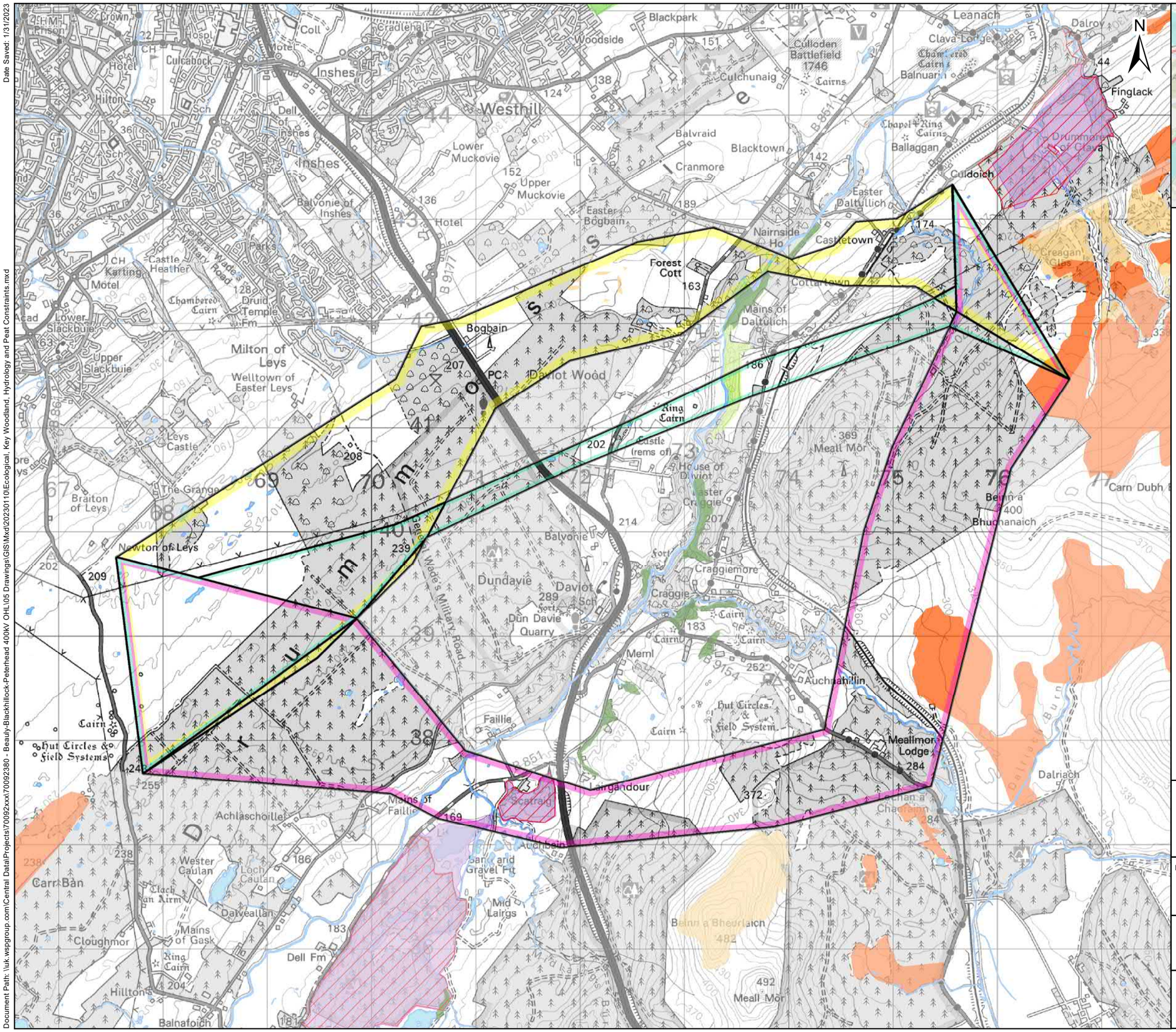
Drawing Number: B2P-WSP-DA-70092380



N

Legend

Route Options

- 3A
- 3B
- 3C

Constraints

- Inland waterway
- Geological Conservation Review Sites
- NatureScot Prioirty Peatland Habitat - Class 1
- NatureScot Prioirty Peatland Habitat - Class 2
- Sites of Special Scientific Interest (SSSI)

Ancient Woodland

- 1a - Semi-Natural
- 1b - Long-established woodlands of plantation origin (LEPO)
- 2a - Semi-Natural

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Wood-land, Hydrology and Peat Constraints Page 3 of 11

Date: 1/31/2023 Scale: 35,000 @ A3

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Drawing Number: B2P-WSP-DA-70092380

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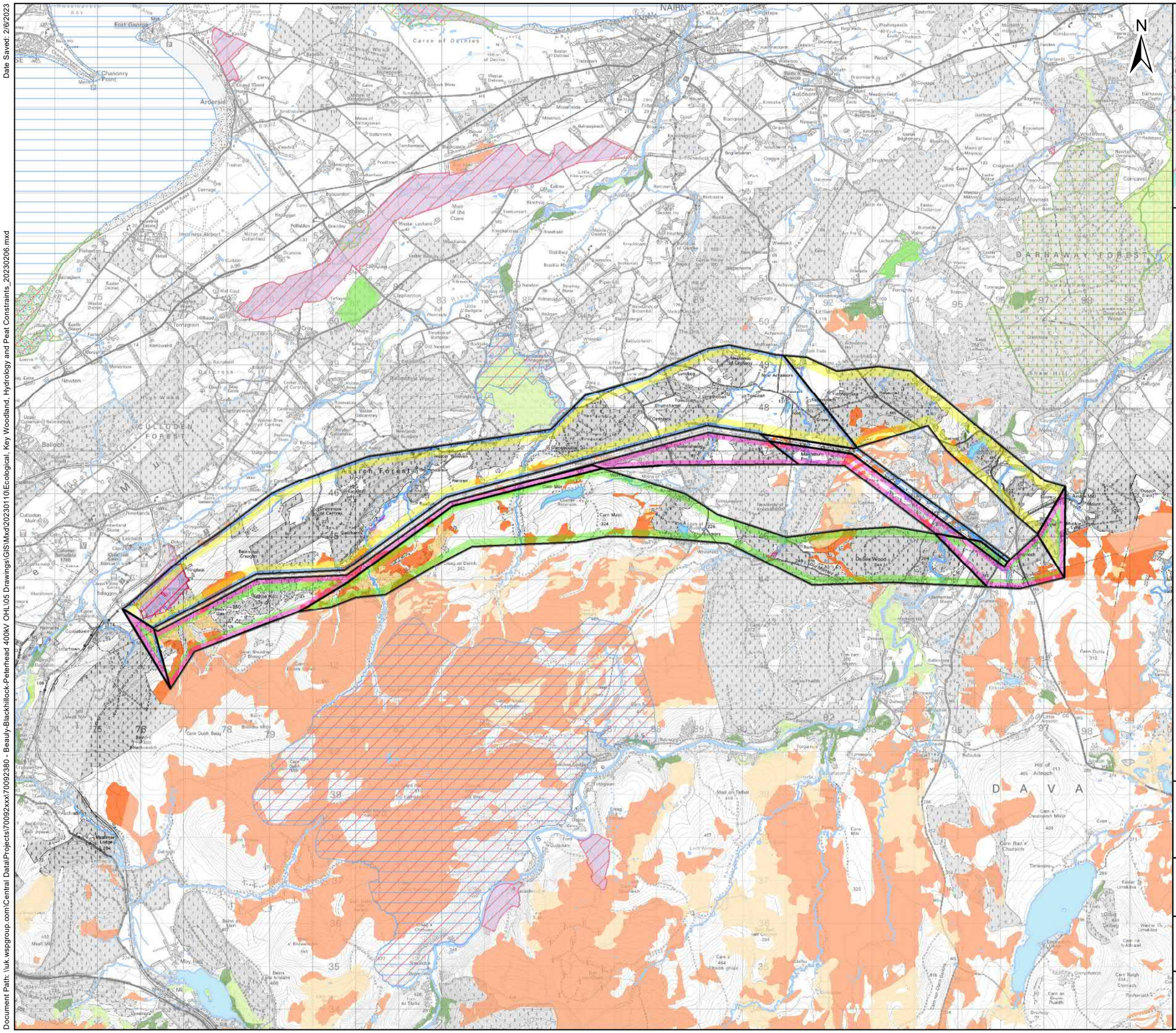

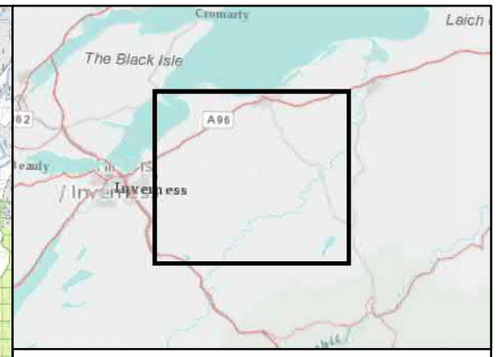

Legend

Route Options

- 4A1
- 4A2
- 4B
- 4C

Constraints

- Inland waterway
- Geological Conservation Review Sites
- NatureScot Priority Peatland Habitat - Class 1
- NatureScot Priority Peatland Habitat - Class 2
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Important Bird Area
- Ramsar

Ancient Woodland

- 1a - Semi-Natural
- 1b - Long-established woodlands of plantation origin (LEPO)
- 2a - Semi-Natural

0 5001,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints Page 4 of 11

Date: 2/6/2023 Scale: 85,000 @ A3

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Drawing Number: B2P-WSP-DA-70092380

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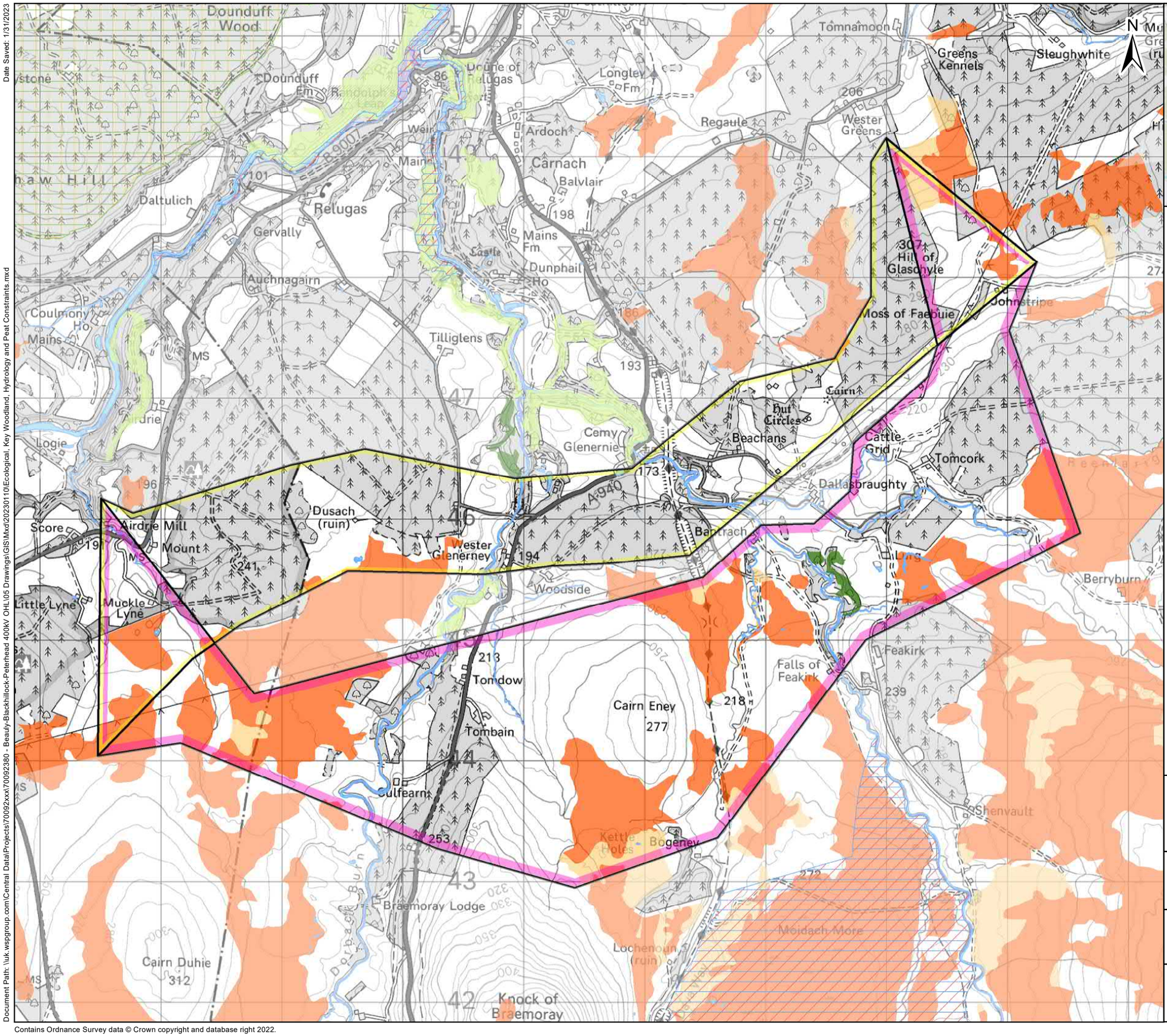

Legend

Route Options

- 5A
- 5B

Constraints

- Inland waterway
- Geological Conservation Review Sites
- NatureScot Prioirty Peatland Habitat - Class 1
- NatureScot Prioirty Peatland Habitat - Class 2
- Special Protection Area
- Special Area of Conservation
- Sites of Special Scientific Interest (SSSI)
- Important Bird

Ancient Woodland

- 1a - Semi-Natural
- 2a - Semi-Natural

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints
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Date: 1/31/2023 Scale: 30,000 @ A3
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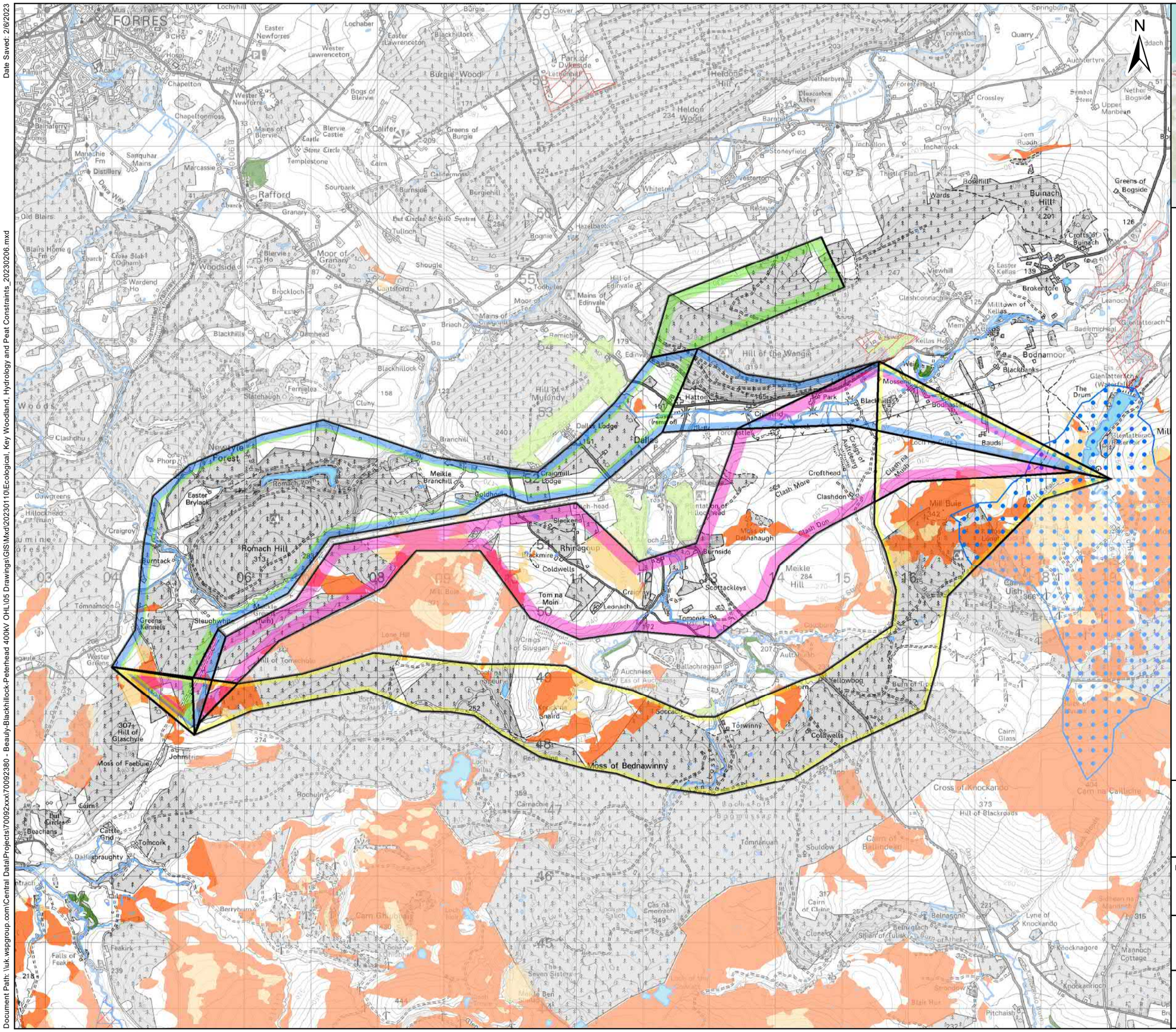

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints Page 6 of 11

Date: 2/6/2023 Scale: 55,000 @ A3

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Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/6/2023

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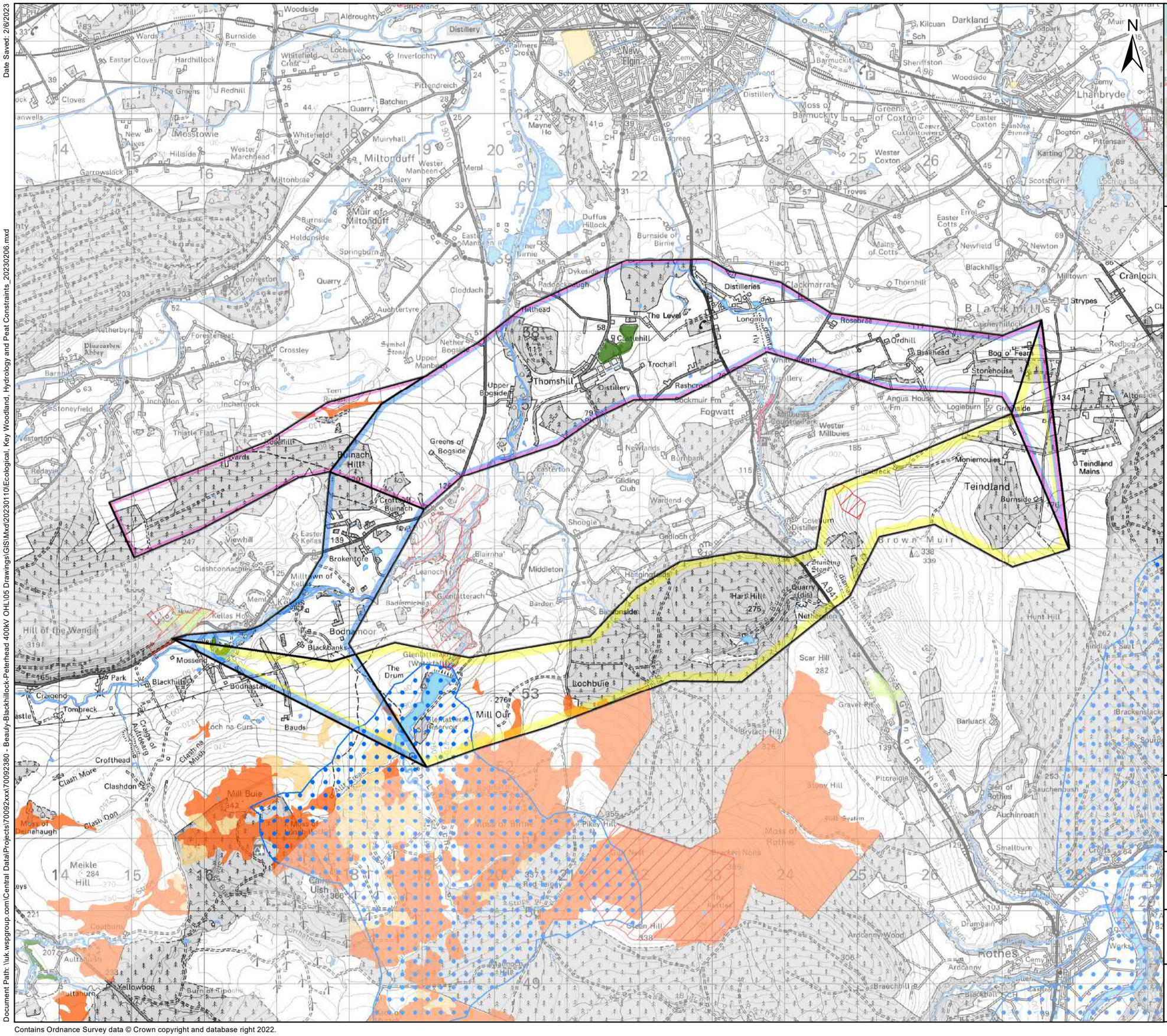

Legend

Route Options

- 7A1
- 7A2
- 7B

Constraints

- Inland waterway
- Drinking Water Protected Areas (Surface Water)
- Geological Conservation Review Sites
- NatureScot Priority Peatland Habitat - Class 1
- NatureScot Priority Peatland Habitat - Class 2
- Special Area of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Local Nature Conservation Site

Ancient Woodland

- 1a - Semi-Natural
- 2a - Semi-Natural

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints Page 7 of 11

Date: 2/6/2023 Scale: 50,000 @ A3

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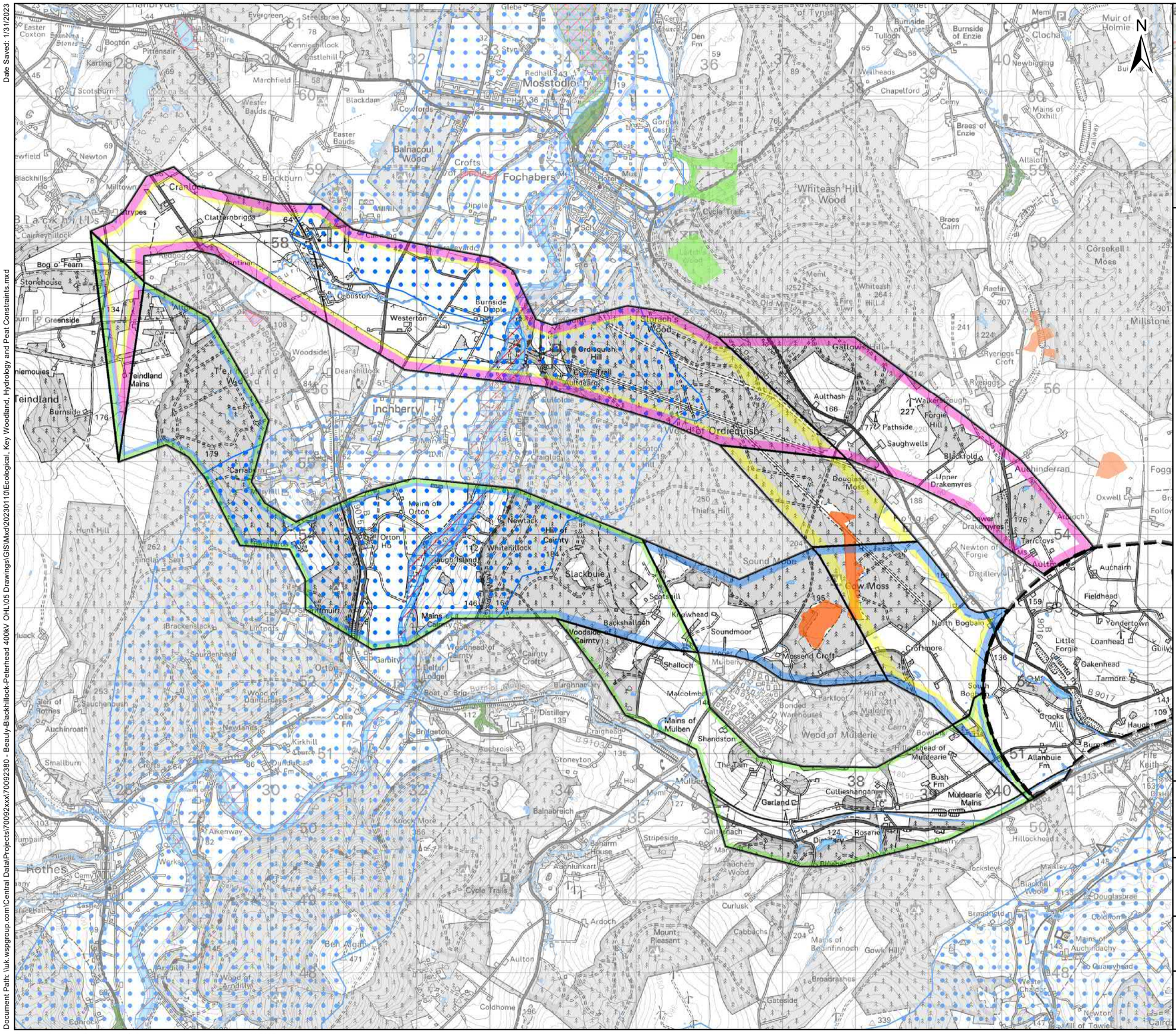
Drawing Number: B2P-WSP-DA-70092380



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Legend

Route Options

- 8A1
- 8A2
- 8B1
- 8B2
- Node

Constraints

- Inland waterway
- Drinking Water Protected Areas (Surface Water)
- Geological Conservation Review Sites
- NatureScot Prioirty Peatland Habitat - Class 1
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Important Bird Area
- Ramsar

Ancient Woodland

- 1b - Long-established woodlands of plantation origin (LEPO)
- 2a - Semi-Natural

0 500 1,000
Metres

Client: Scottish & Southern Electricity Networks
TRANSMISSION

Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title
Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints
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Date: 1/31/2023
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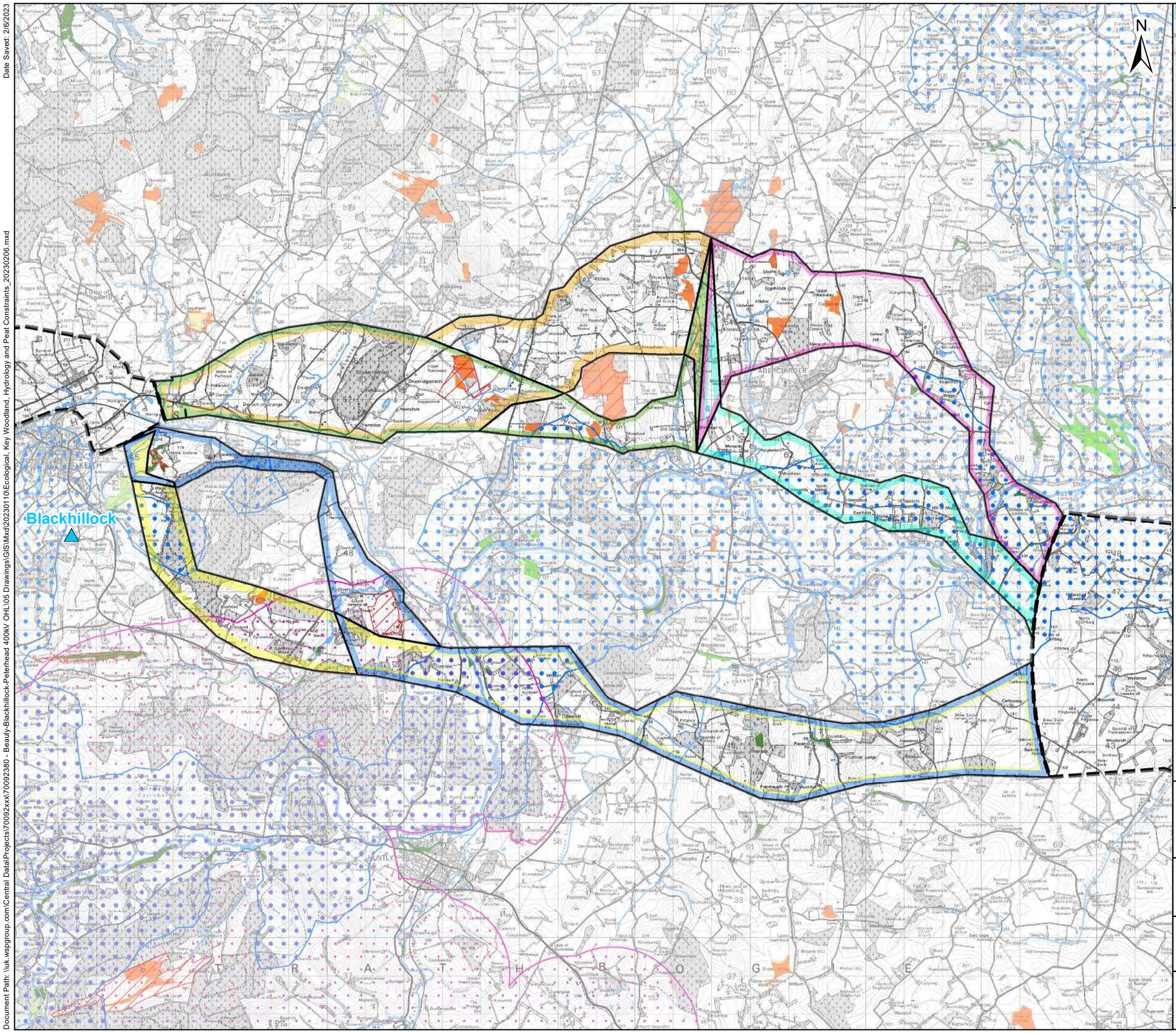
Approved: SM
Drawing Number: B2P-WSP-DA-70092380



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Legend

▲ Existing Substation

Route Options

- 🟧 9A1
- 🟩 9A2
- 🟪 9B1
- 🟩 9B2
- 🟦 9C1
- 🟨 9C2
- ⬚ Node

Constraints

- 🟦 Inland waterway
- • • Drinking Water Protected Areas (Surface Water)
- 🟪 Geological Conservation Review Sites
- 🟧 NatureScot Prioirty Peatland Habitat - Class 1
- 🟨 NatureScot Prioirty Peatland Habitat - Class 2
- ☐ Special Area of Conservation (SAC)
- ▨ Sites of Special Scientific Interest (SSSI)
- • • Wildcat Priority Area
- 🟨 Local Nature Conservation Site

Ancient Woodland

- 🟩 1a - Semi-Natural
- 🟩 1b - Long-established woodlands of plantation origin (LEPO)
- 🟩 2a - Semi-Natural

0 500 1,000
Metres

Client: Scottish & Southern Electricity Networks
TRANSMISSION

Project:
Beauly to Blackhillock to New Deer
to Peterhead 400 kV Connection

Title
Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints
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Date: 2/6/2023
Scale: 95,000 @ A3
Drawn: MAL
Checked: IM
Approved: SM
Drawing Number: B2P-WSP-DA-70092380

Date Saved: 1/31/2023

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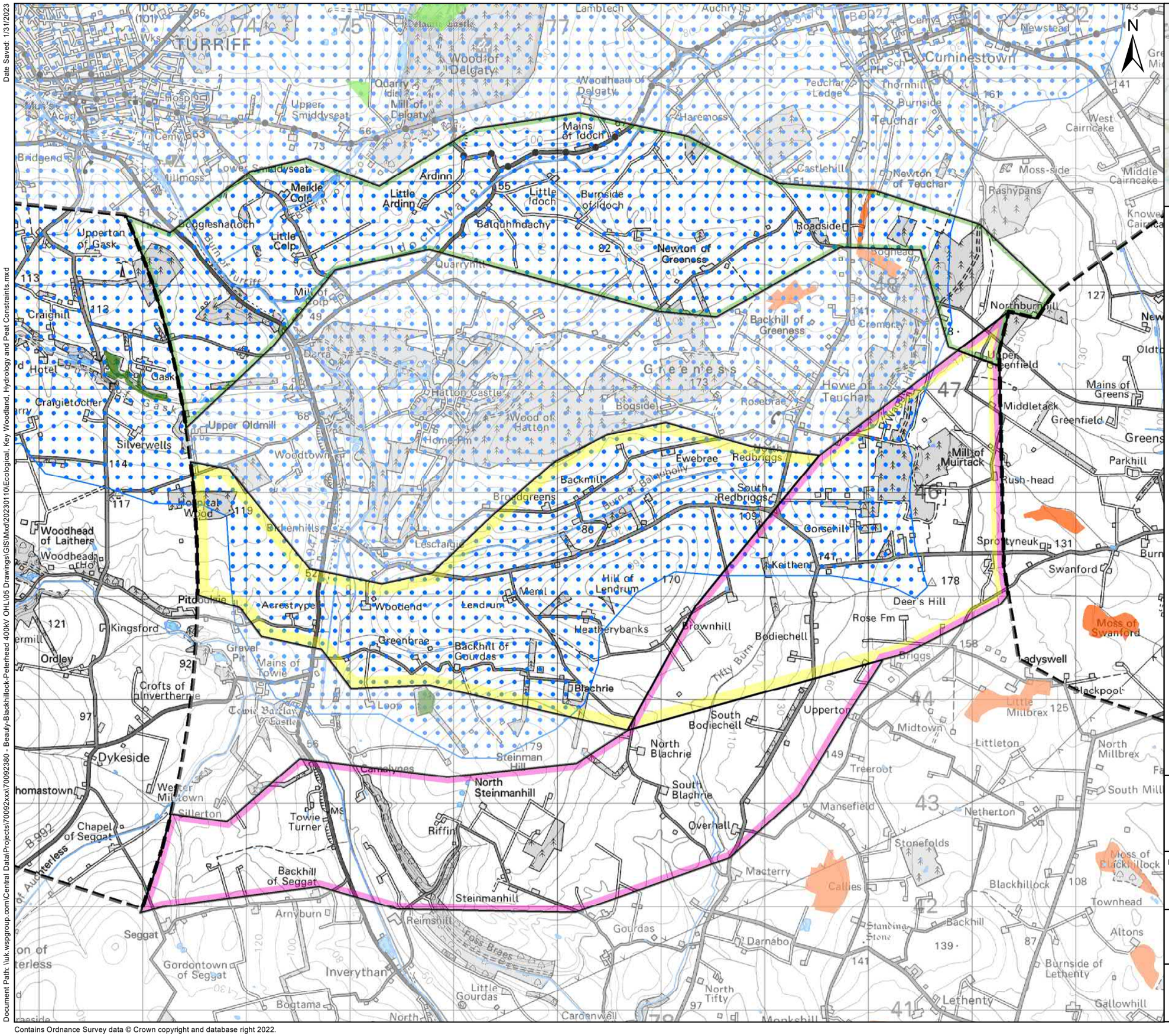

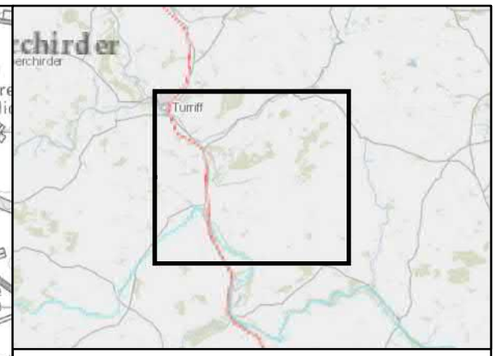

Legend

Route Options

- 10A
- 10B
- 10C
- Node

Constraints

- Inland waterway
- Drinking Water Protected Areas (Surface Water)
- NatureScot Priority Peatland Habitat - Class 1

Ancient Woodland

- 1b - Long-established woodlands of plantation origin (LEPO)
- 2a - Semi-Natural

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints
Page 10 of 11

Date: 1/31/2023 Scale: 35,000 @ A3
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Drawing Number: B2P-WSP-DA-70092380

Date Saved: 1/31/2023

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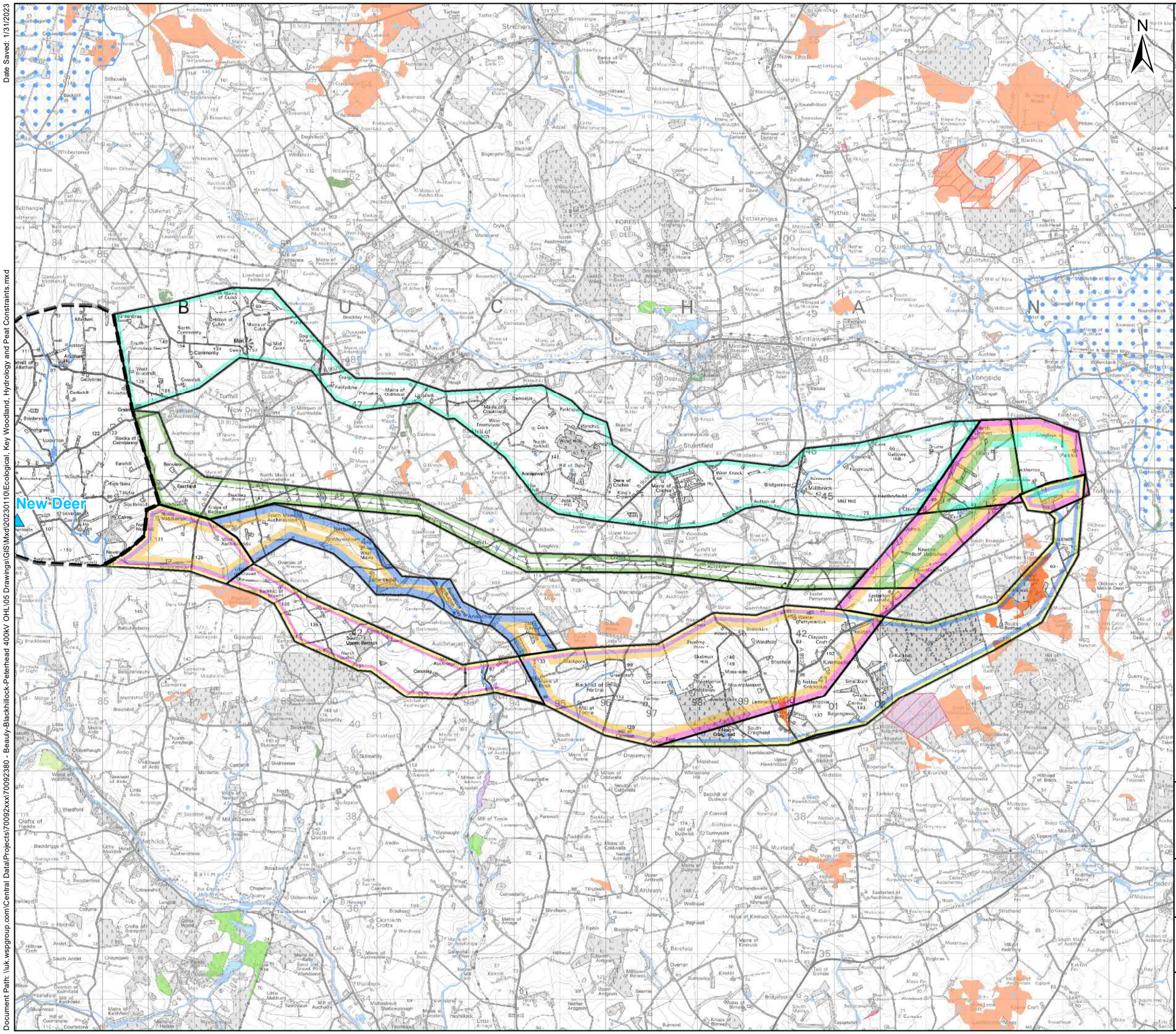

Legend

- Existing Substation

Route Options

- 11A
- 11B
- 11C1
- 11C2
- 11C3
- 11C4
- Node

Constraints

- Inland waterway
- Drinking Water Protected Areas (Surface Water)
- Geological Conservation Review Sites
- NatureScot Prioirty Peatland Habitat - Class 1
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Important Bird Area

Ancient Woodland

- 1a - Semi-Natural
- 1b - Long-established woodlands of plantation origin (LEPO)
- 2a - Semi-Natural

0 5001,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.1: Ecological, Key Woodland, Hydrology and Peat Constraints Page 11 of 11

Date: 1/31/2023 Scale: 80,000 @ A3

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Drawing Number: B2P-WSP-DA-70092380

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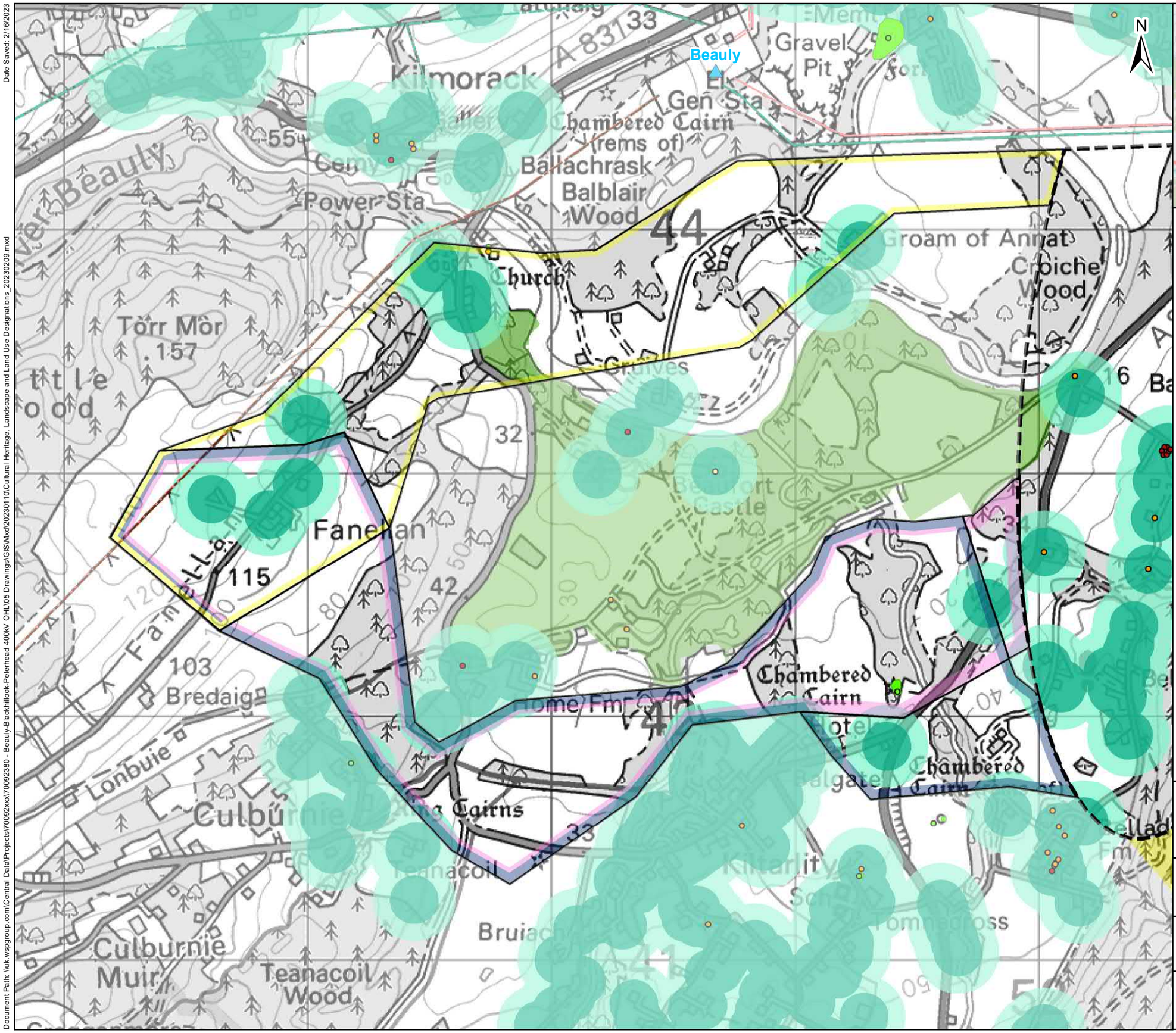
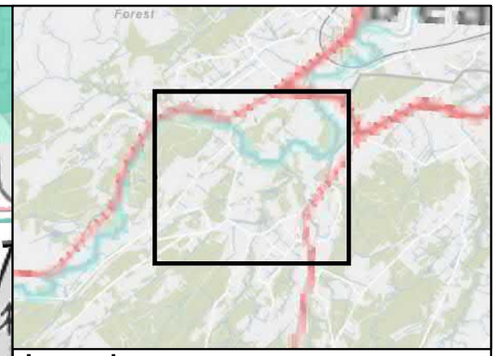




Legend

- Existing Substation

Route Options

- 1A
- 1B1
- 1B2
- Node

Constraints

- Scheduled Monument
- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- 400 kV AC
- Residential dwelling, Educational, medical & worship & buffer 100m
- Residential dwelling, Educational, medical & worship & buffer 170m
- Scheduled Monument
- Garden and Designed Landscape

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

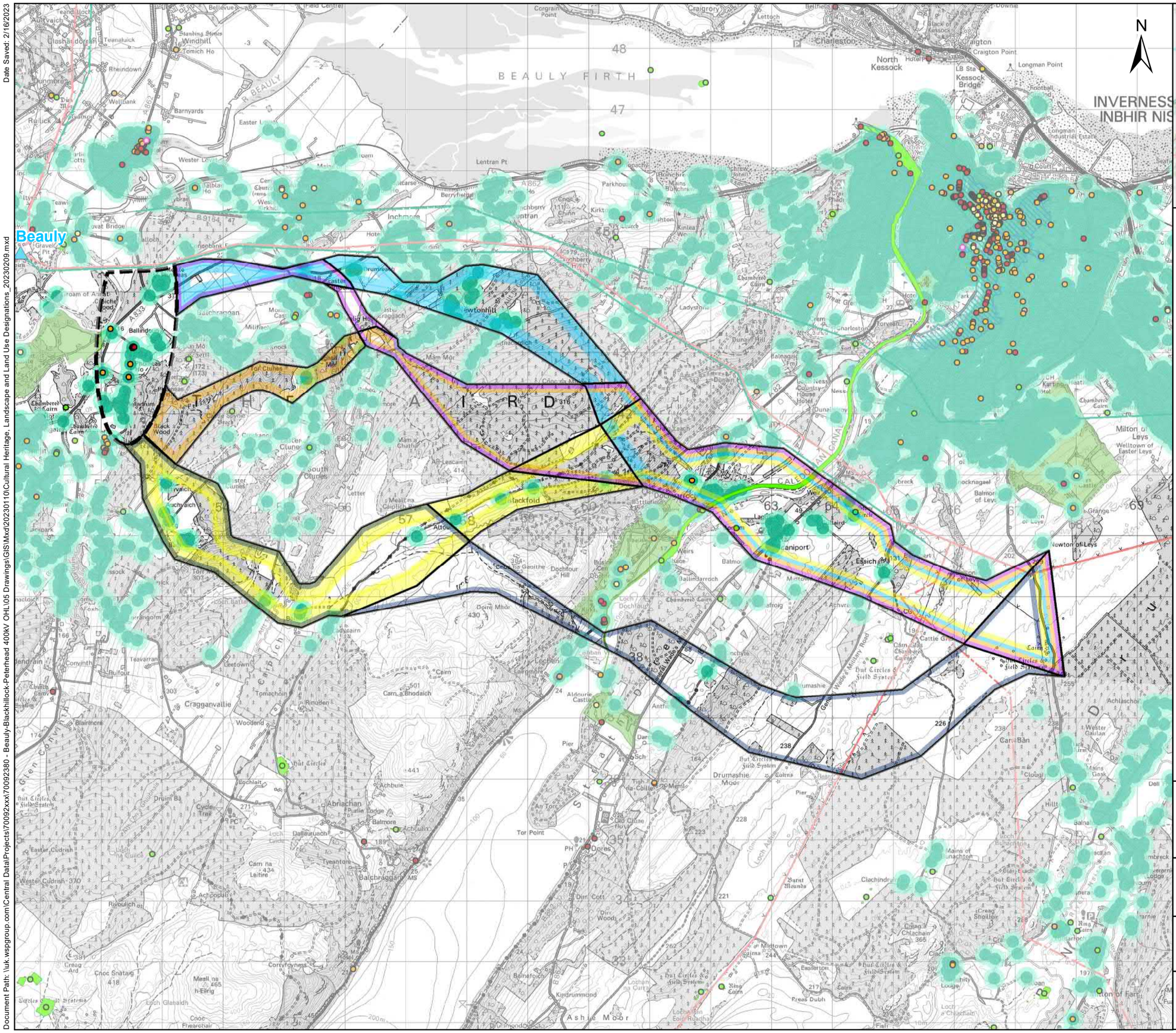
Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints Page 1 of 11

Date: 2/16/2023 Scale: 15,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380



Date Saved: 2/16/2023

Document Path: \\uk.wspgroup.com\Central Data\Projects\70092xxx\70092380 - Beauly-Blackhillock-Peterhead 400kV OHL\05 Drawings\GIS\Mxd\20230110\Cultural Heritage, Landscape and Land Use Designations_20230209.mxd

Legend

🔺 Existing Substation

Route Options

- 2A1
- 2A2
- 2B
- 2C1
- 2C2
- Node

Constraints

- ● Scheduled Monument
- ● Property in Care
- ● Listed Building Grade A
- ● Listed Building Grade B
- ● Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- 🟩 Residential dwelling, Educational, medical & worship & buffer 100m
- 🟩 Residential dwelling, Educational, medical & worship & buffer 170m
- ▨ Conservation Area
- 🟩 Scheduled Monument
- 🟩 Garden and Designed Landscape

0 500 1,000
Metres

Client: Scottish & Southern Electricity Networks
TRANSMISSION

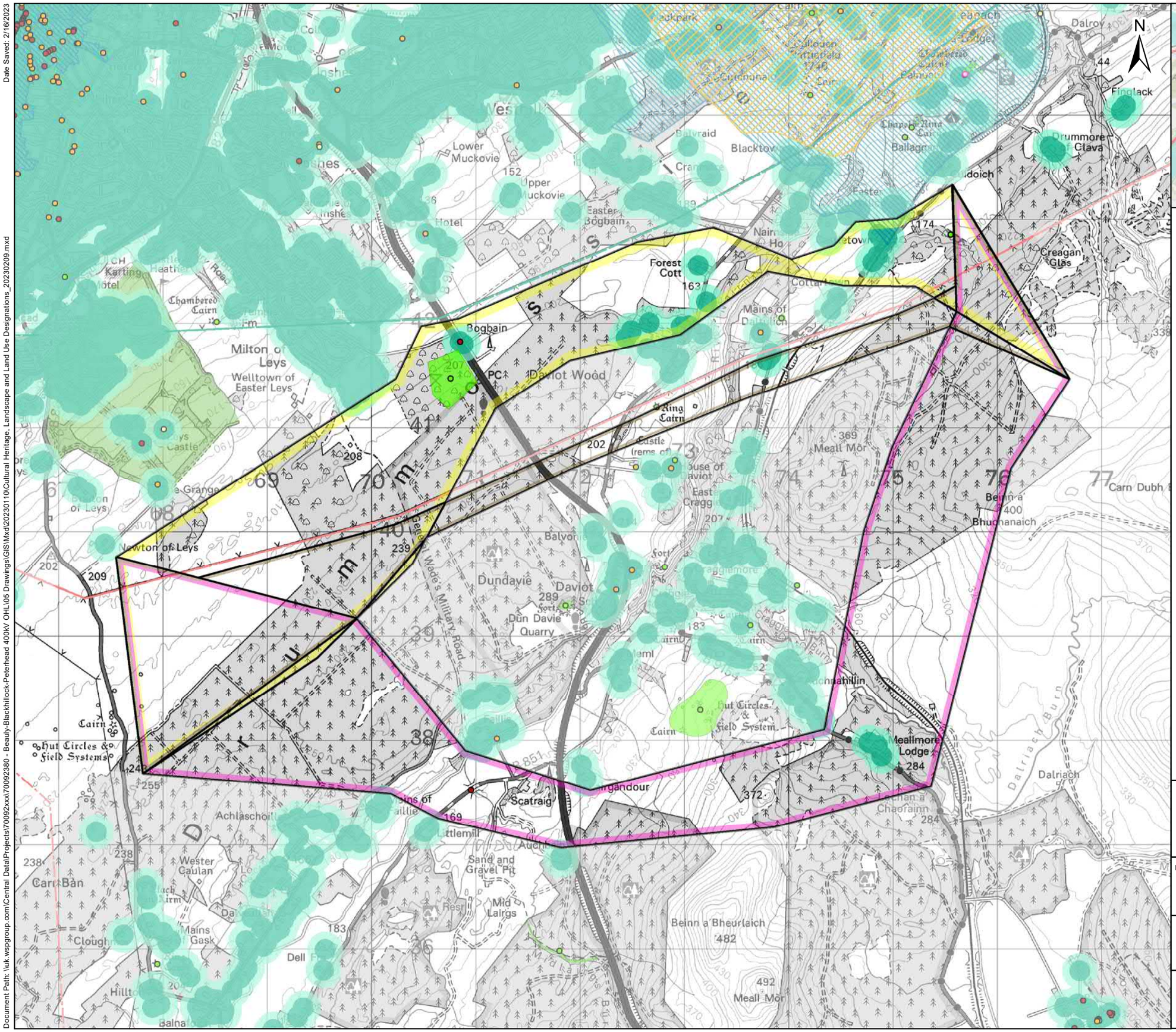
Project:
Beauly to Blackhillock to New Deer
to Peterhead 400 kV Connection

Title
Figure 5.2: Cultural Heritage, Landscape
and Land Use Designations Constraints
Page 2 of 11

Date: 2/16/2023
Scale: 60,000 @ A3
Drawn: MAL
Checked: IM
Approved: SM
Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/16/2023

Document Path: \\uk.wsgroup.com\Central Data\Projects\70092xxx\70092380 - Beauly-Blackhillock-Peterhead 400kV OHL\05 Drawings\GIS\Mxd\20230110\Cultural Heritage, Landscape and Land Use Designations_20230209.mxd



Legend

Route Options

- 3A
- 3B
- 3C

Constraints

- Scheduled Monument
- Property in Care
- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- Residential dwelling, Educational, medical & worship & buffer 100m
- Residential dwelling, Educational, medical & worship & buffer 170m
- Battleground
- Conservation Area
- Scheduled Monument
- Garden and Designed Landscape

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints Page 3 of 11

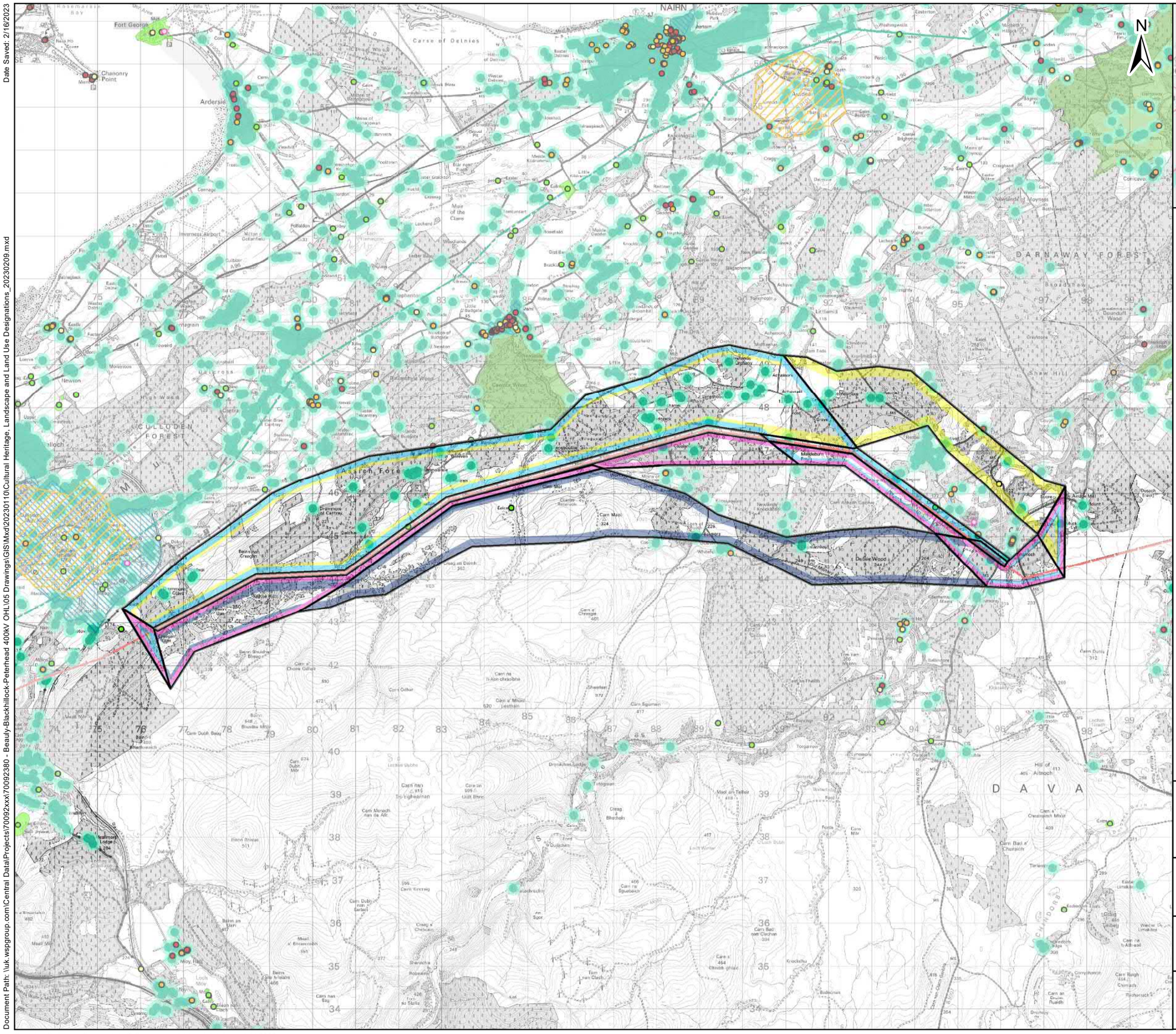
Date: 2/16/2023 Scale: 35,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/16/2023

Document Path: \\uk.wspgroup.com\Central Data\Projects\70092xxx\70092380 - Beauly-Blackhillock-Peterhead 400kV OHL\05 Drawings\GIS\Mxd\20230110\Cultural Heritage, Landscape and Land Use Designations_20230209.mxd



Legend

Route Options

- 4A1
- 4A2
- 4B
- 4C

Constraints

- Scheduled Monument
- Property in Care
- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- Residential dwelling, Educational, medical & worship & buffer 100m
- Residential dwelling, Educational, medical & worship & buffer 170m
- Battleground
- Conservation Area
- Scheduled Monument
- Garden and Designed Landscape

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints Page 4 of 11

Date: 2/16/2023 Scale: 85,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/16/2023

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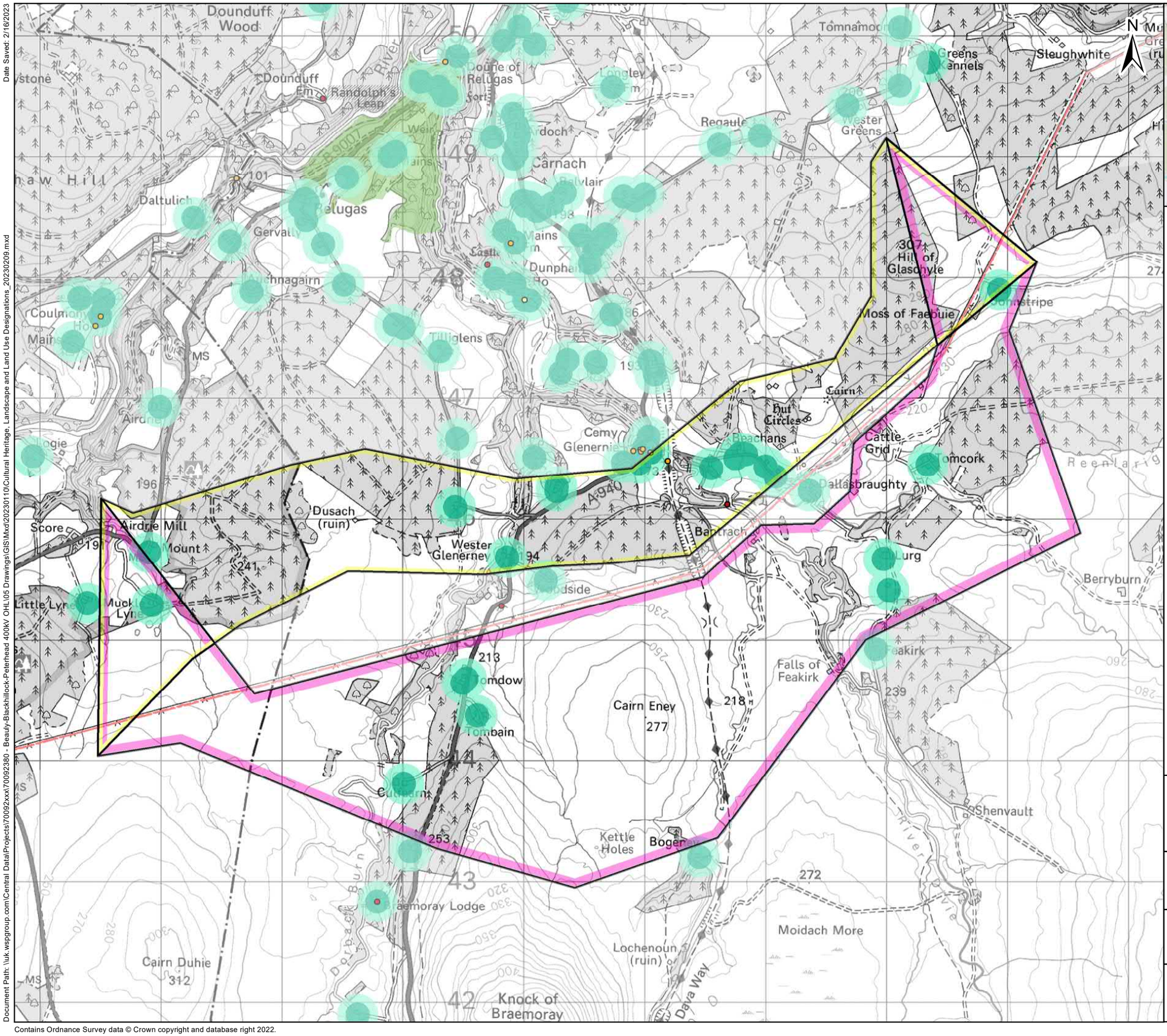


Legend

Route Options

- 5A
- 5B

Constraints

- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C

Overhead Line

- 275 kV AC
- Residential dwelling, Educational, medical & worship & buffer 100m
- Residential dwelling, Educational, medical & worship & buffer 170m
- Garden and Designed Landscape

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

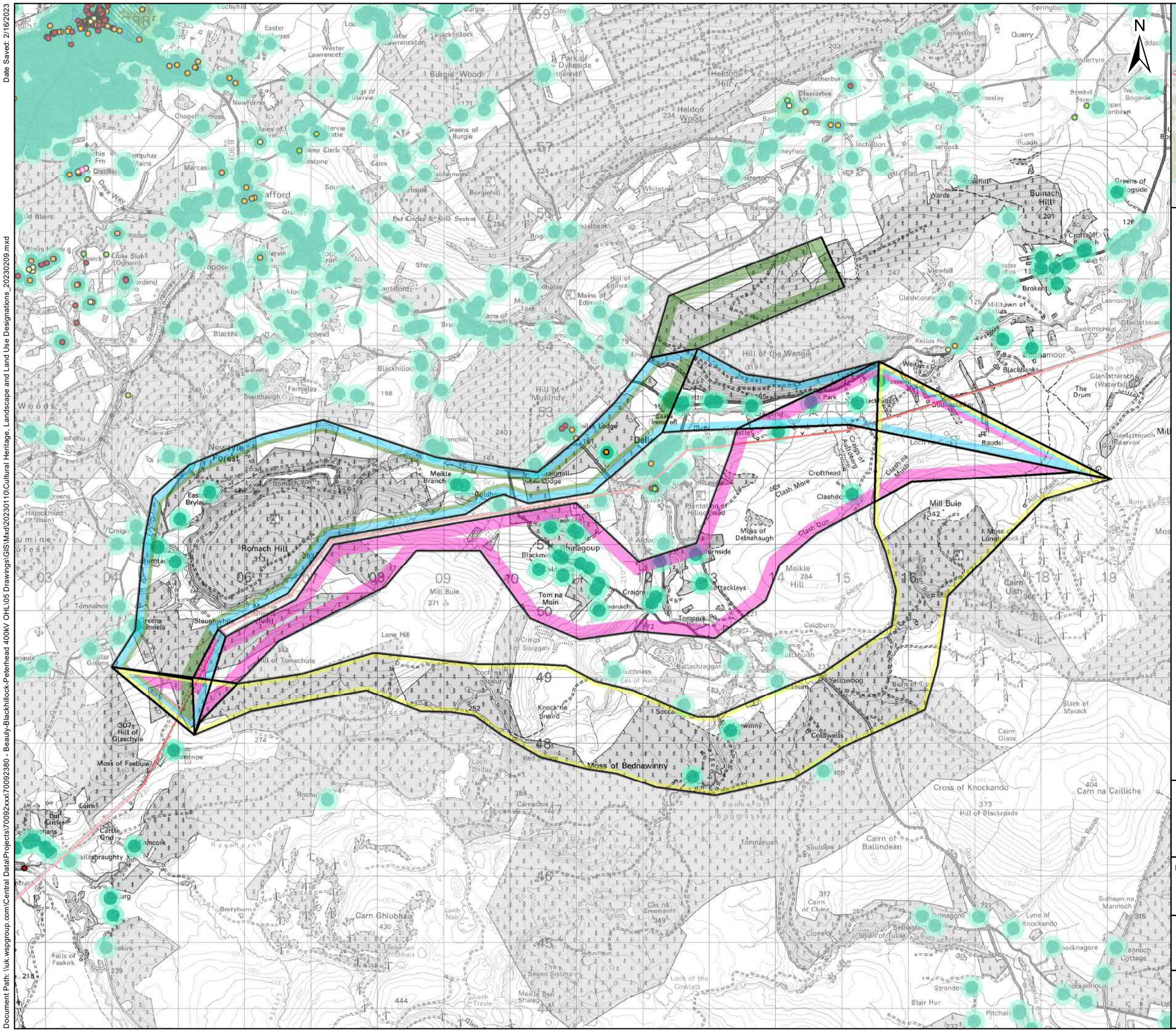
Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints Page 5 of 11

Date: 2/16/2023 Scale: 30,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380



Date Saved: 2/16/2023

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Legend

Route Options

- 🟩 6A1
- 🟦 6A2
- 🟪 6B
- 🟨 6C

Constraints

- ● Scheduled Monument
- ○ Property in Care
- ○ Listed Building Grade
- ● Listed Building Grade B
- ● Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- 🟩 Residential dwelling, Educational, medical & worship & buffer
- 🟩 Residential dwelling, Educational, medical & worship & buffer
- ▨ Conservation
- 🟩 Scheduled Monument
- 🟩 Garden and Designed Landscape

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project:

Beauly to Blackhillock to New Deer
to Peterhead 400 kV Connection

Title Figure 5.2: Cultural Heritage, Landscape
and Land Use Designations Constraints
Page 6 of 11

Date:	2/16/2023			Scale:	55,000 @ A3
Drawn:	MAL	Checked:	IM	Approved:	SM
Drawing Number:	B2P-WSP-DA-70092380				

Date Saved: 2/16/2023

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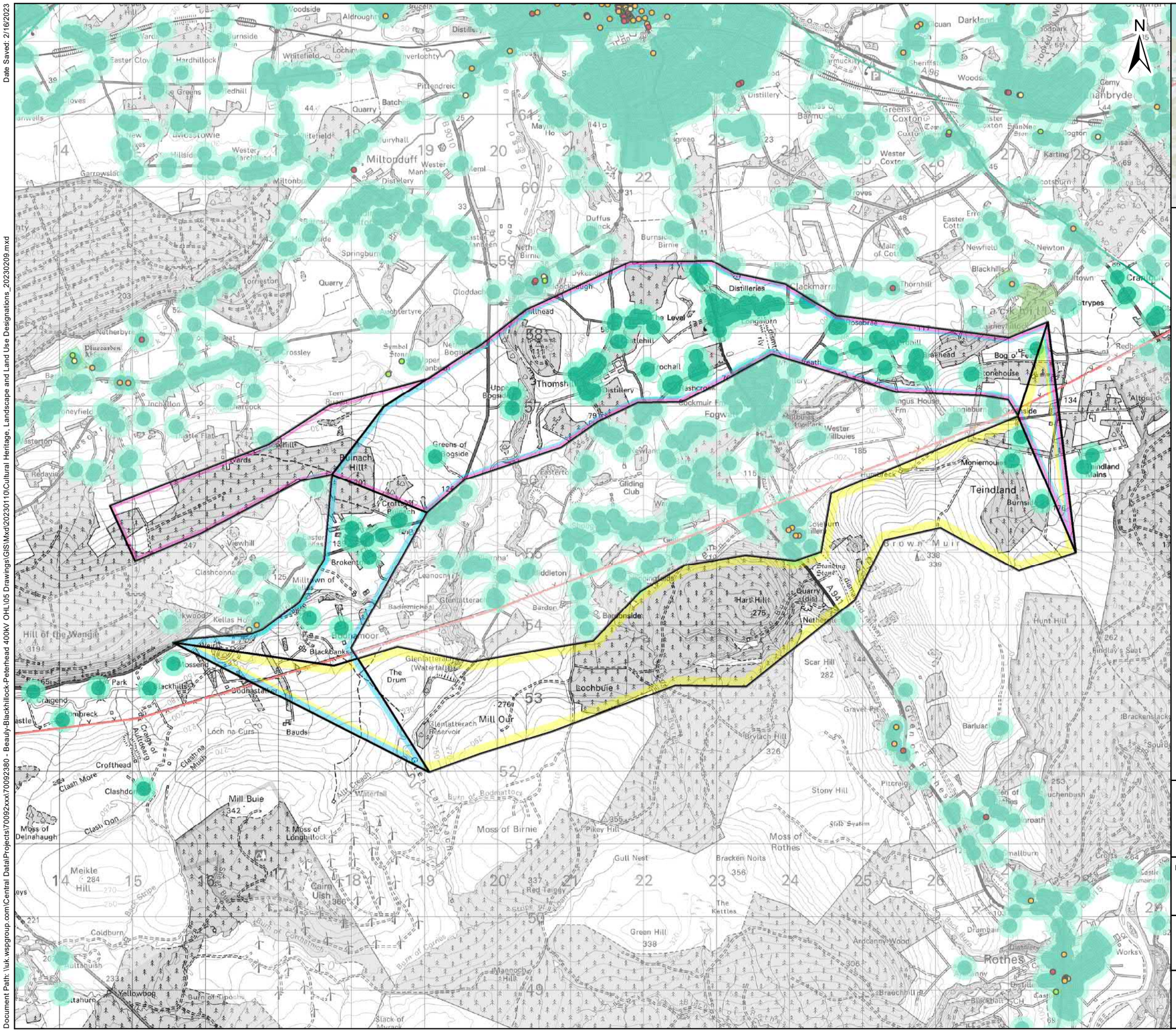

Legend

Route Options

- 7A1
- 7A2
- 7B

Constraints

- Scheduled Monument
- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- Residential dwelling, Educational, medical & worship & buffer 100m
- Residential dwelling, Educational, medical & worship & buffer 170m
- Conservation Area
- Scheduled Monument
- Garden and Designed Landscape

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints Page 7 of 11

Date: 2/16/2023 Scale: 50,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/16/2023

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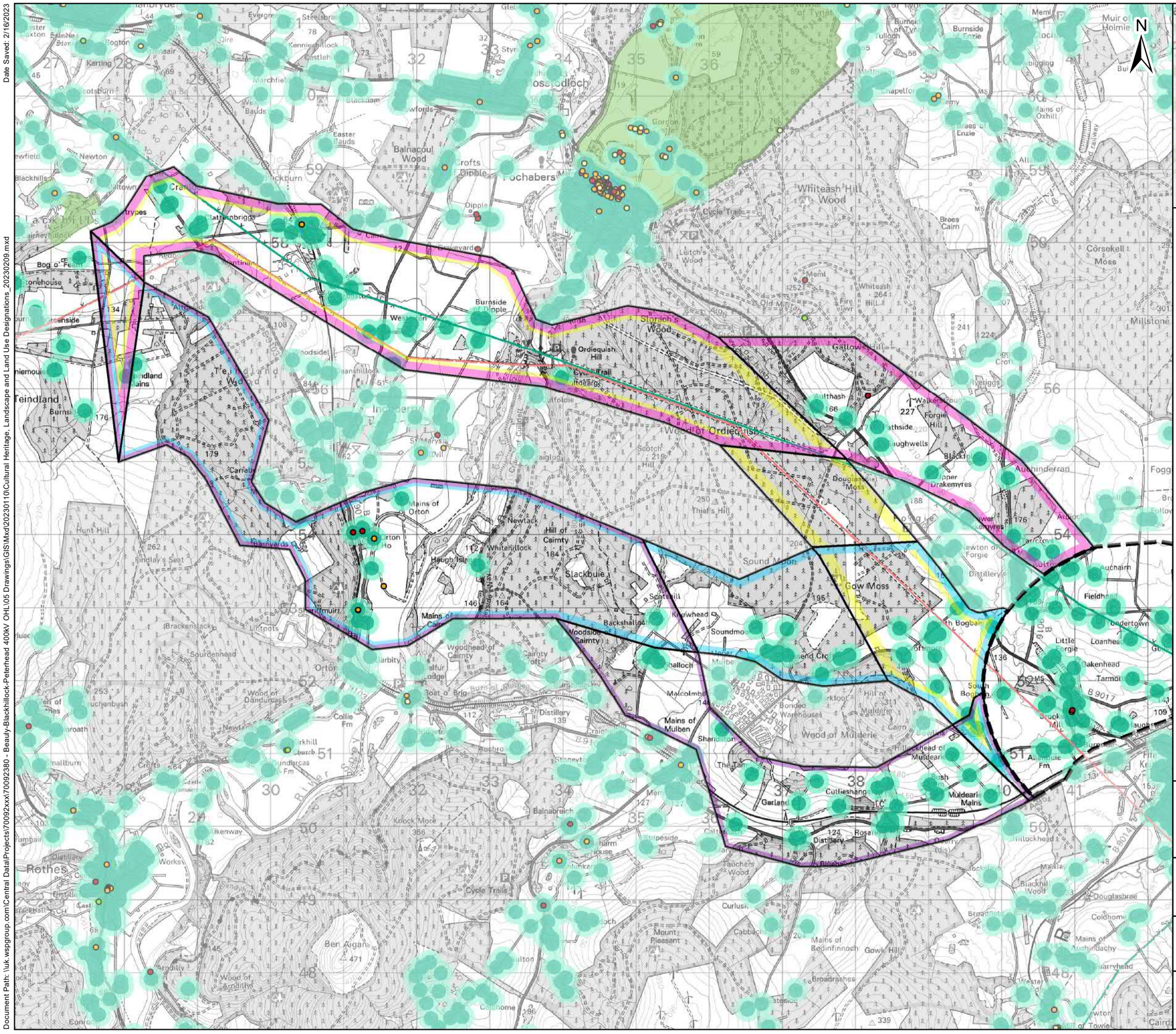

Legend

Route Options

- 8A1
- 8A2
- 8B1
- 8B2
- Node

Constraints

- Scheduled Monument
- Listed Building Grade
- Listed Building Grade B
- Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- Residential dwelling, Educational, medical & worship & buffer
- Residential dwelling, Educational, medical & worship & buffer
- Conservation
- Scheduled Monument
- Garden and Designed Landscape

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints Page 8 of 11

Date: 2/16/2023 Scale: 50,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/16/2023

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Blackhillock

Legend

- Existing Substation

Route Options

- 9A1
- 9A2
- 9B1
- 9B2
- 9C1
- 9C2
- Node

Constraints

- Scheduled Monument
- Property in Care
- Listed Building Grade
- Listed Building Grade B
- Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- Residential dwelling, Educational, medical & worship & buffer 100m
- Residential dwelling, Educational, medical & worship & buffer 170m
- Conservation
- Scheduled Monument
- Garden and Designed Landscape

0 500 1,000
Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title
Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints
Page 9 of 11

Date: 2/16/2023 Scale: 95,000 @ A3
Drawn: MAL Checked: IM Approved: SM
Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/16/2023

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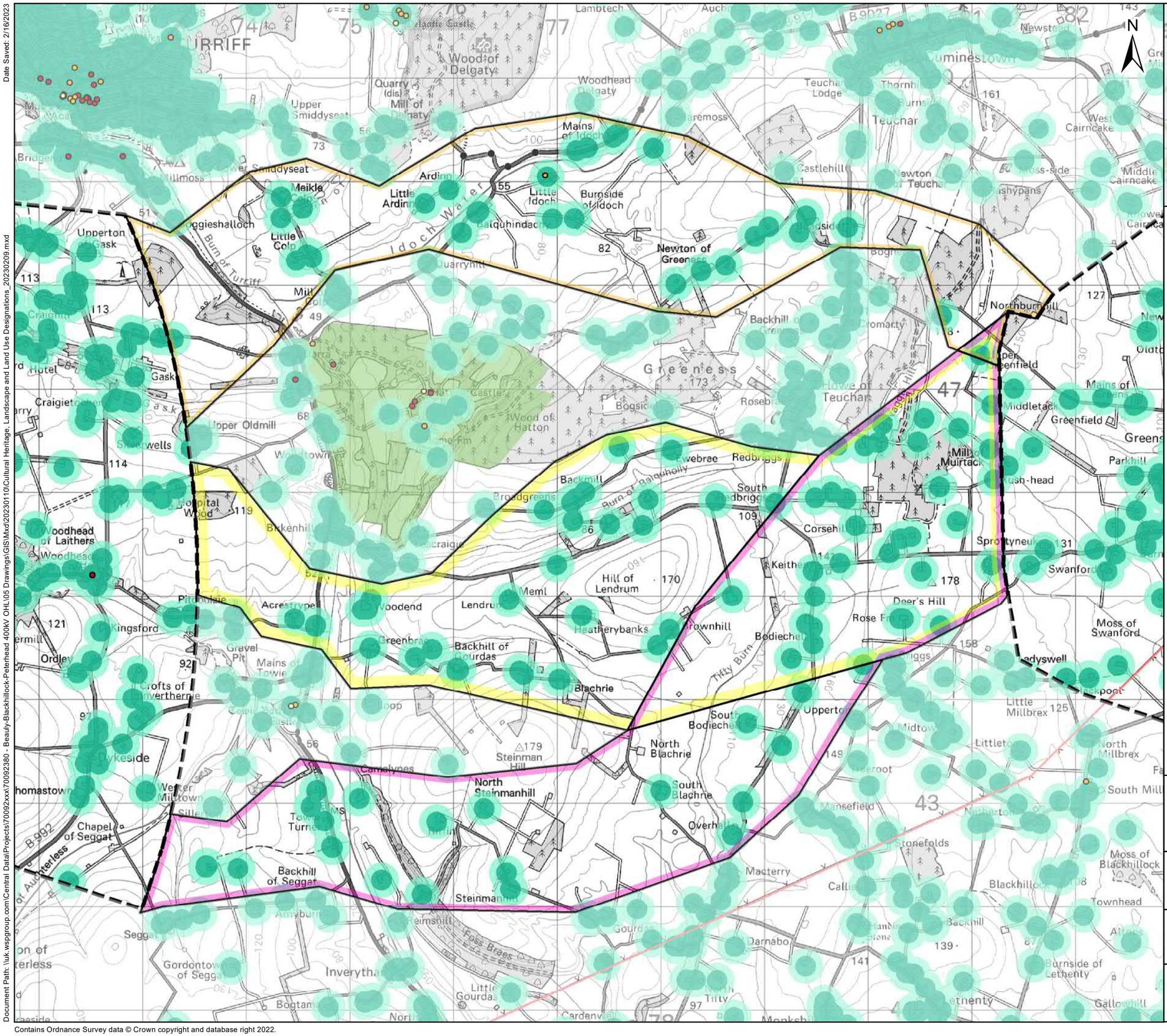

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints Page 10 of 11

Date: 2/16/2023 Scale: 35,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/16/2023

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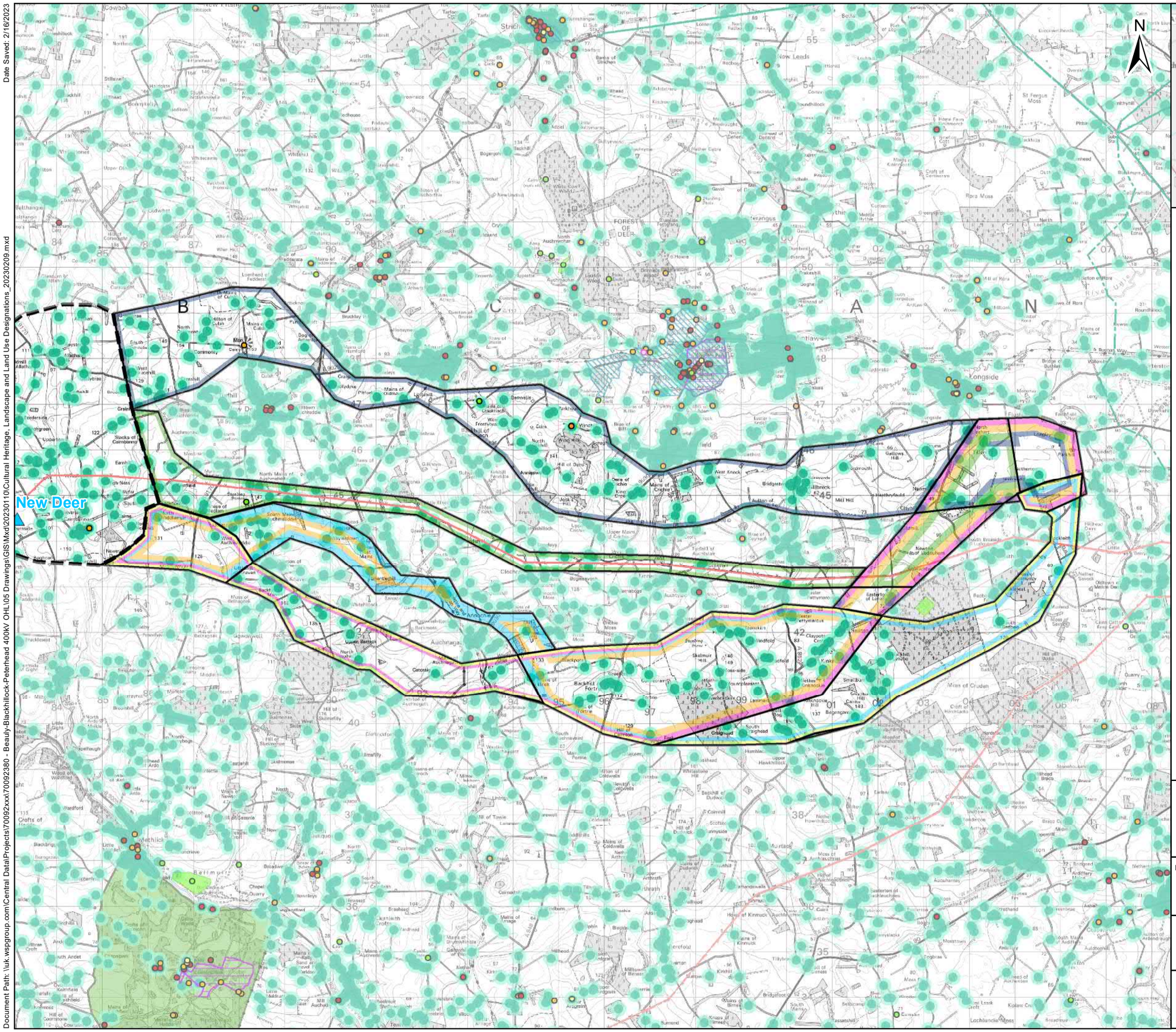


Legend

- Existing Substation

Route Options

- 11A
- 11B
- 11C1
- 11C2
- 11C3
- 11C4
- Node

Constraints

- Scheduled Monument
- Property in Care
- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C

Overhead Line

- 132 kV AC
- 275 kV AC
- Residential dwelling, Educational, medical & worship & buffer 100m
- Residential dwelling, Educational, medical & worship & buffer 170m
- Country Park
- Conservation Area
- Scheduled Monument
- Garden and Designed Landscape

0 5001,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.2: Cultural Heritage, Landscape and Land Use Designations Constraints Page 11 of 11

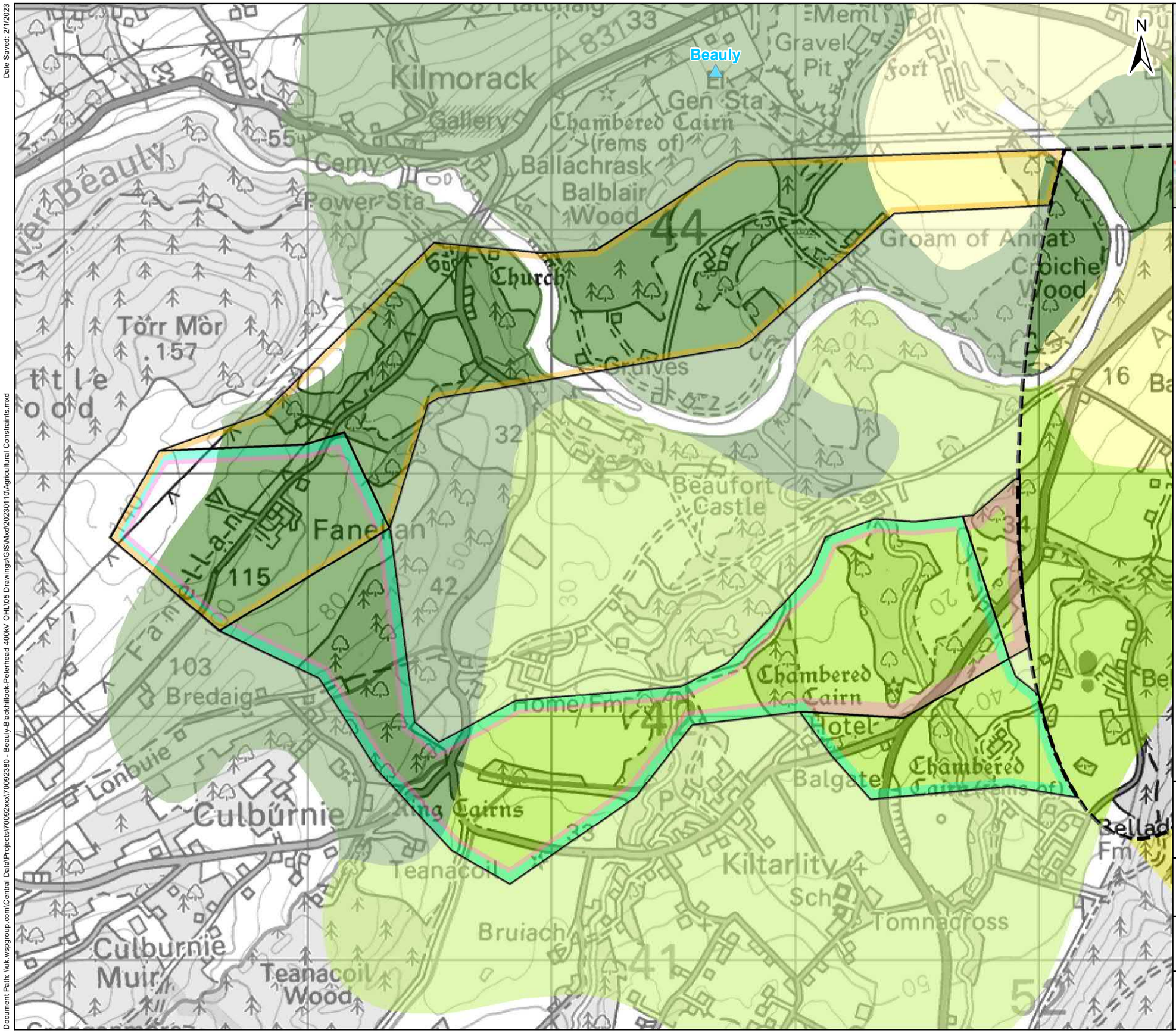
Date: 2/16/2023 Scale: 80,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/1/2023

Document Path: \\uk.wspgroup.com\Central Data\Projects\70092xxx\70092380 - Beauly-Blackhillock-Peterhead 400kV OHL\05 Drawings\GIS\Mxd\20230110\Agricultural Constraints.mxd



Legend

- Existing Substation

Route Options

- 1A
- 1B1
- 1B2
- Node

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 2
- 3.1
- 3.2

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints Page 1 of 11

Date: 2/1/2023 Scale: 15,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/9/2023

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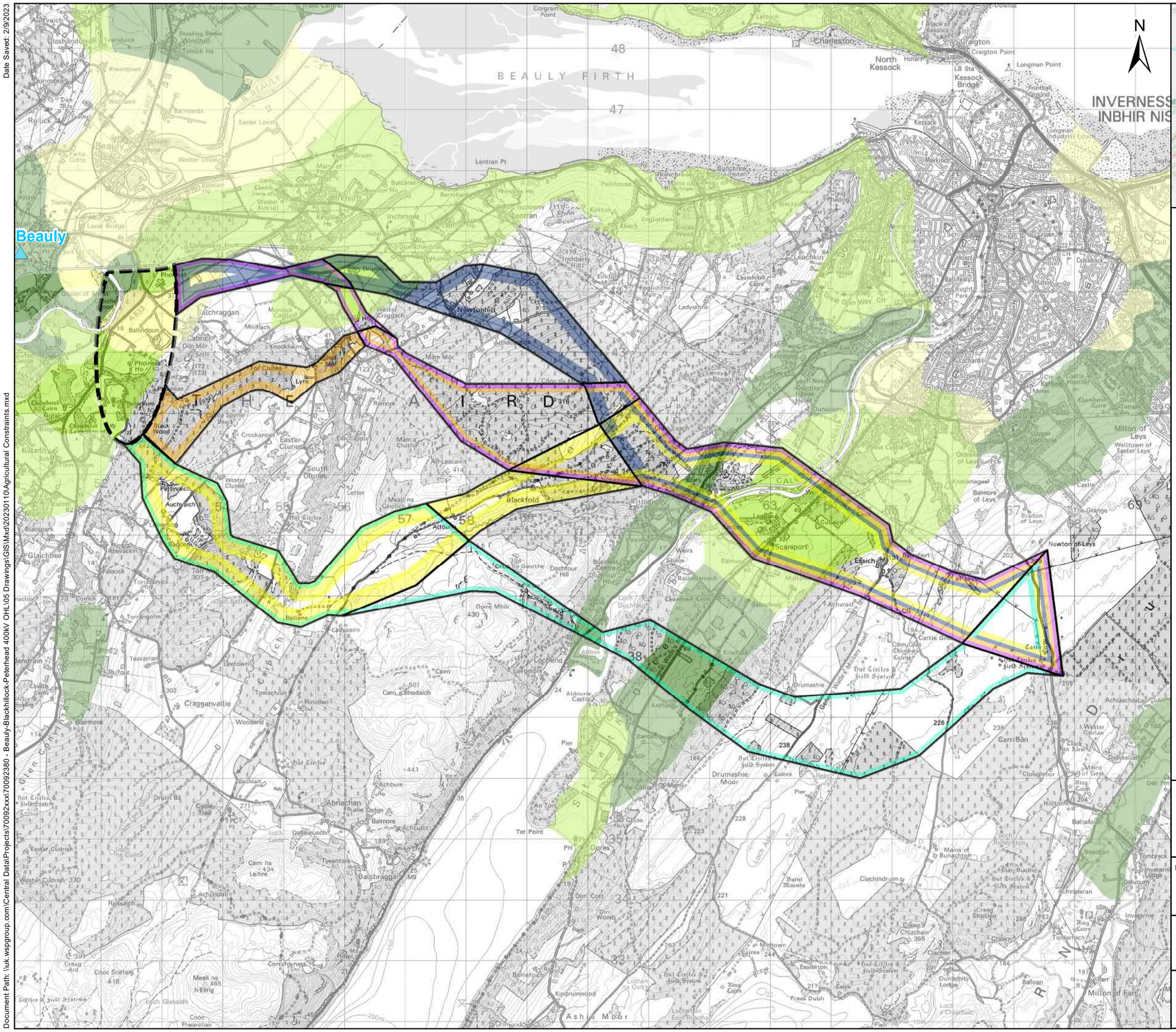


Legend

- Existing Substation

Route Options

- 2A1
- 2A2
- 2B
- 2C1
- 2C2
- Node

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 2
- 3.1
- 3.2

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

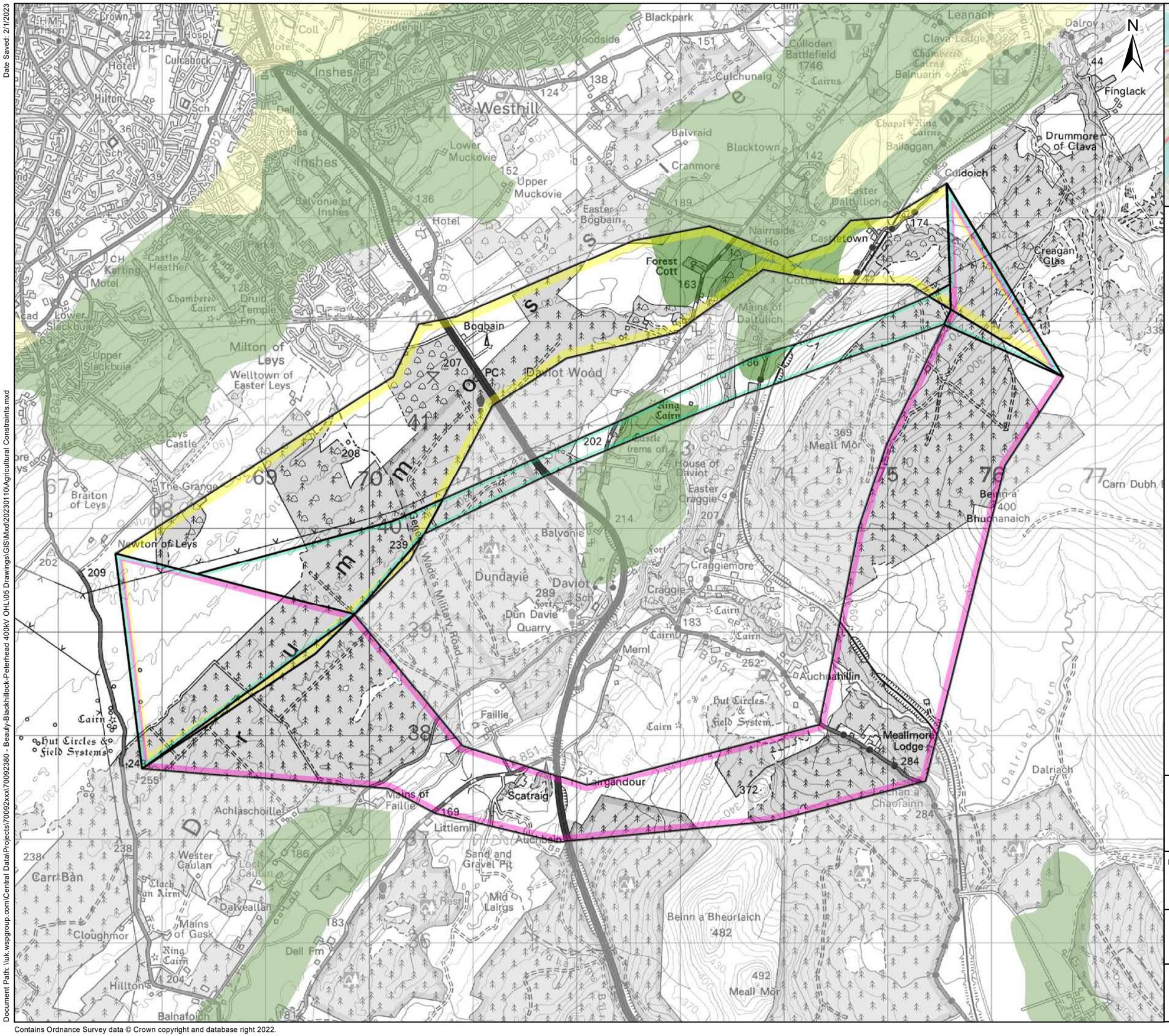
Title: Figure 5.3: Agricultural Constraints
Page 2 of 11

Date: 2/9/2023 Scale: 60,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/1/2023



Legend

Route Options

- 3A
- 3B
- 3C

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 2
- 3.2

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints
Page 3 of 11

Date: 2/1/2023 Scale: 35,000 @ A3
Drawn: MAL Checked: IM Approved: SM
Drawing Number: B2P-WSP-DA-70092380

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Date Saved: 2/9/2023

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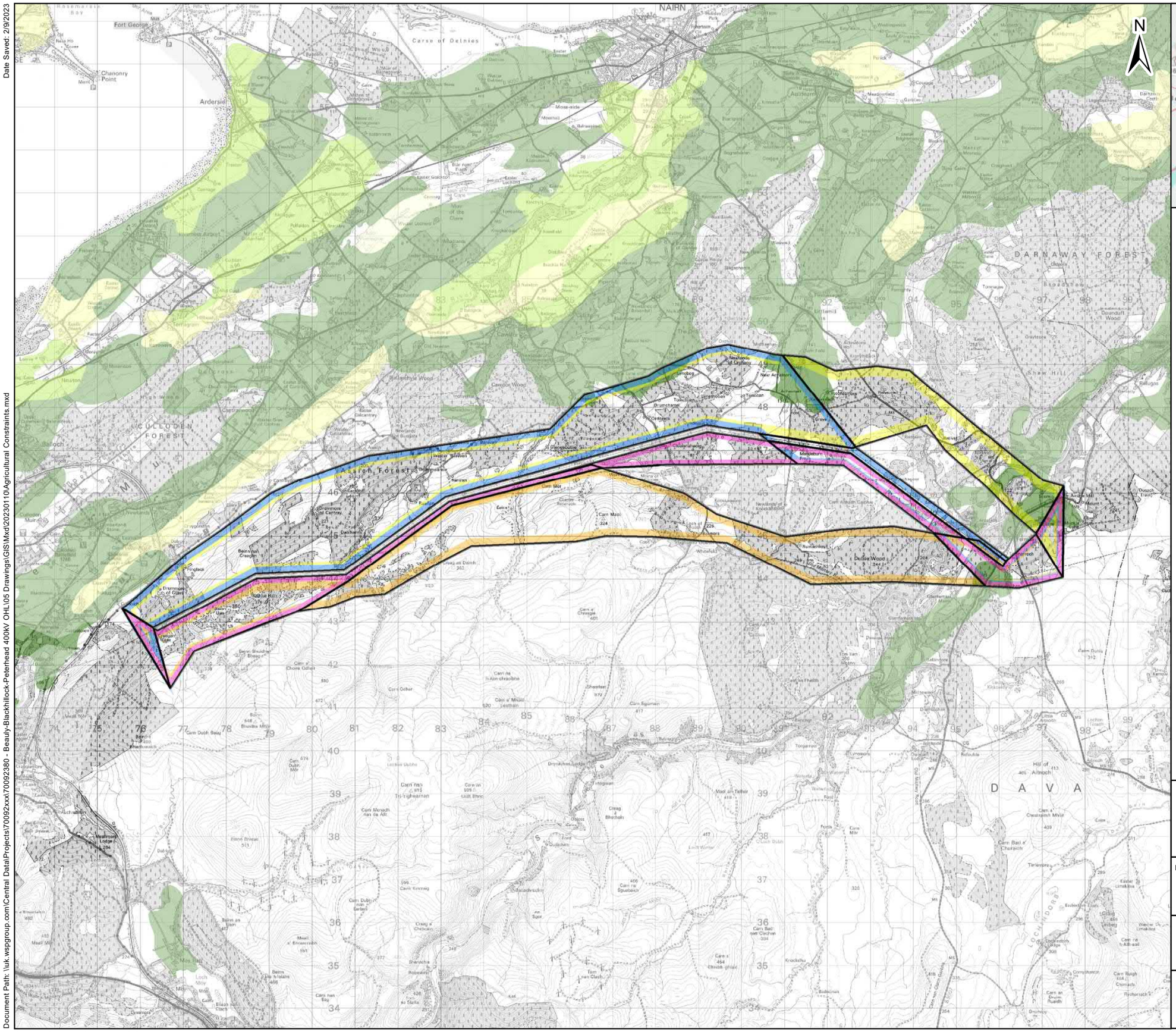

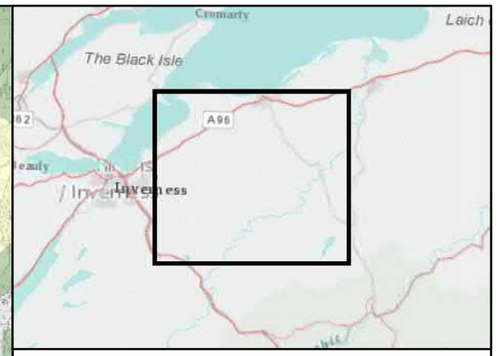

Legend

Route Options

- 4A1
- 4A2
- 4B
- 4C

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 1
- 2
- 3.1
- 3.2

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints
Page 4 of 11

Date: 2/9/2023 Scale: 85,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/1/2023

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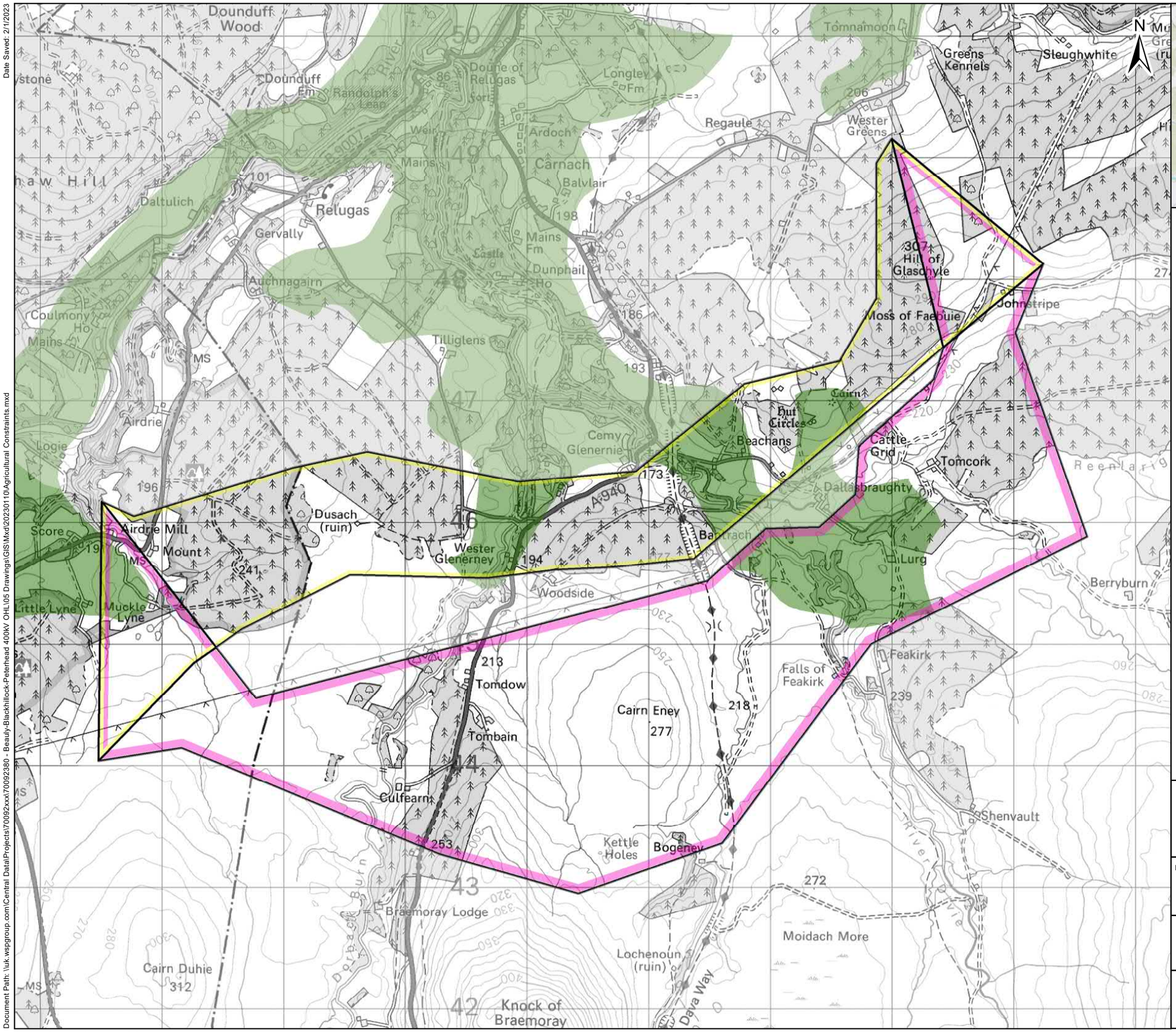


Legend

Route Options

- 5A
- 5B

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 3.2

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

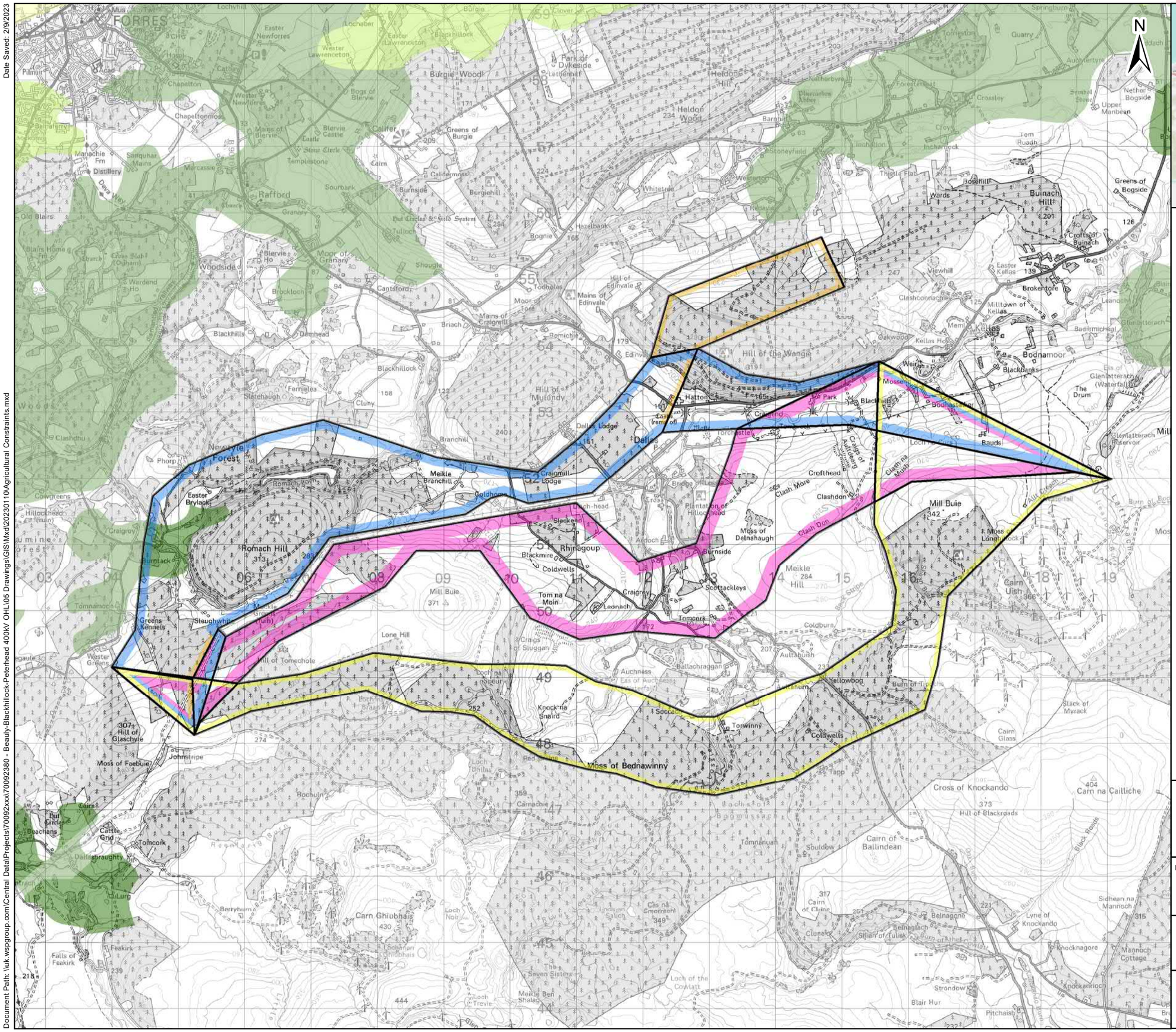
Title: Figure 5.3: Agricultural Constraints
Page 5 of 11

Date: 2/1/2023 Scale: 30,000 @ A3

Drawn: MAL Checked: IM Approved: SM

Drawing Number: B2P-WSP-DA-70092380

Date Saved: 2/9/2023



Legend

Route Options

- 6A1
- 6A2
- 6B
- 6C

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 2
- 3.1
- 3.2

0 500 1,000

Metres

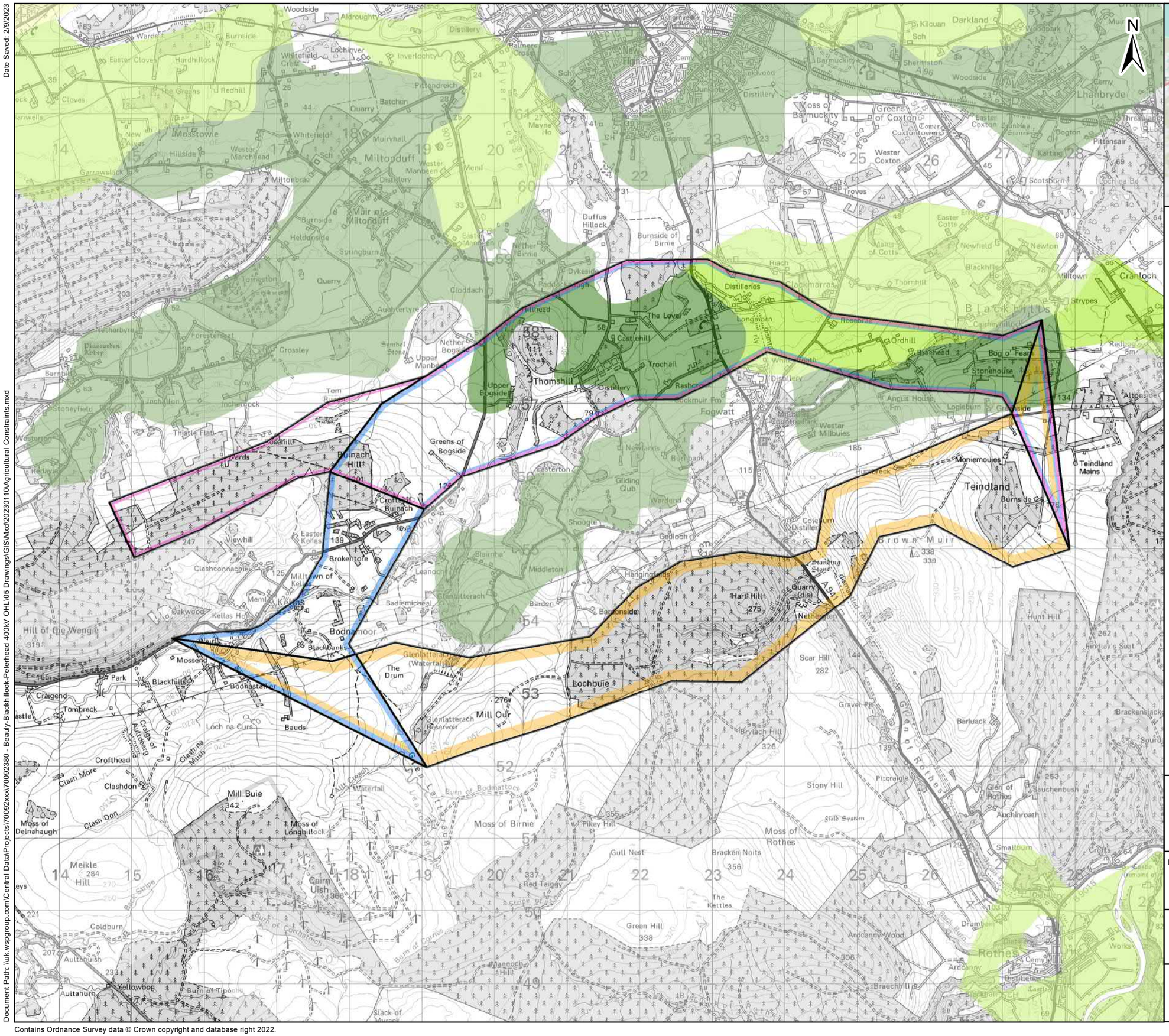
Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints
Page 6 of 11

Date: 2/9/2023 Scale: 55,000 @ A3
Drawn: MAL Checked: IM Approved: SM
Drawing Number: B2P-WSP-DA-70092380

Document Path: \\uk.wspgroup.com\Central Data\Projects\70092xx\70092380 - Beauly-Blackhillock-Peterhead 400kV OHL\05 Drawings\GIS\Mxd\20230110\Agricultural Constraints.mxd



Legend

Route Options

- 7A1
- 7A2
- 7B

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

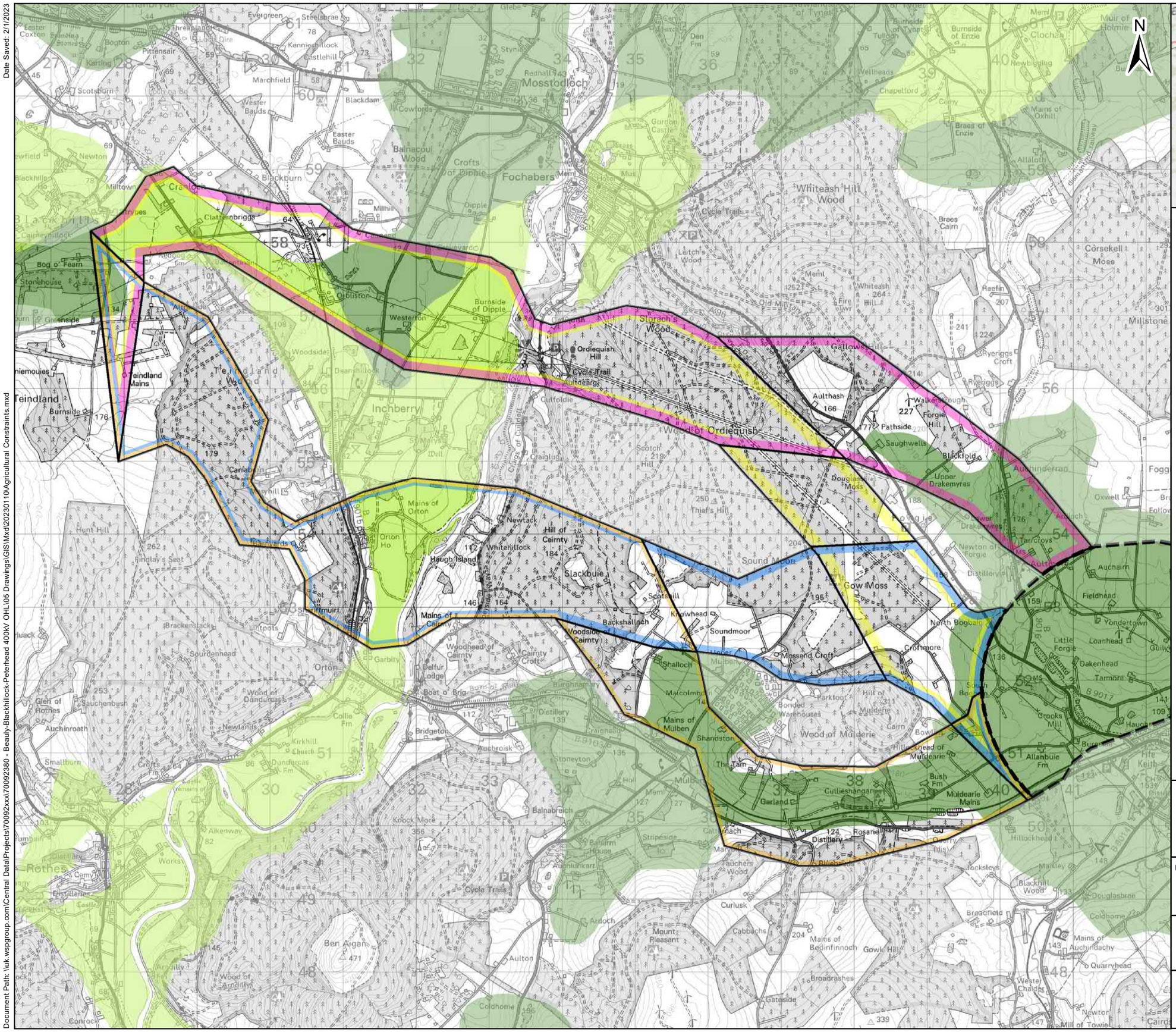
- 2
- 3.1
- 3.2

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints
Page 7 of 11

Date: 2/9/2023 Scale: 50,000 @ A3
Drawn: MAL Checked: IM Approved: SM
Drawing Number: B2P-WSP-DA-70092380



Legend

Route Options

- 8A1
- 8A2
- 8B1
- 8B2
- Node

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 3.1
- 3.2

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints
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Date: 2/1/2023 Scale: 50,000 @ A3

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Blackhillock

N

Legend

Existing Substation

Route Options

- 9A1
- 9A2
- 9B1
- 9B2
- 9C1
- 9C2
- Node

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 3.1
- 3.2

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints
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Date: 2/9/2023 Scale: 95,000 @ A3

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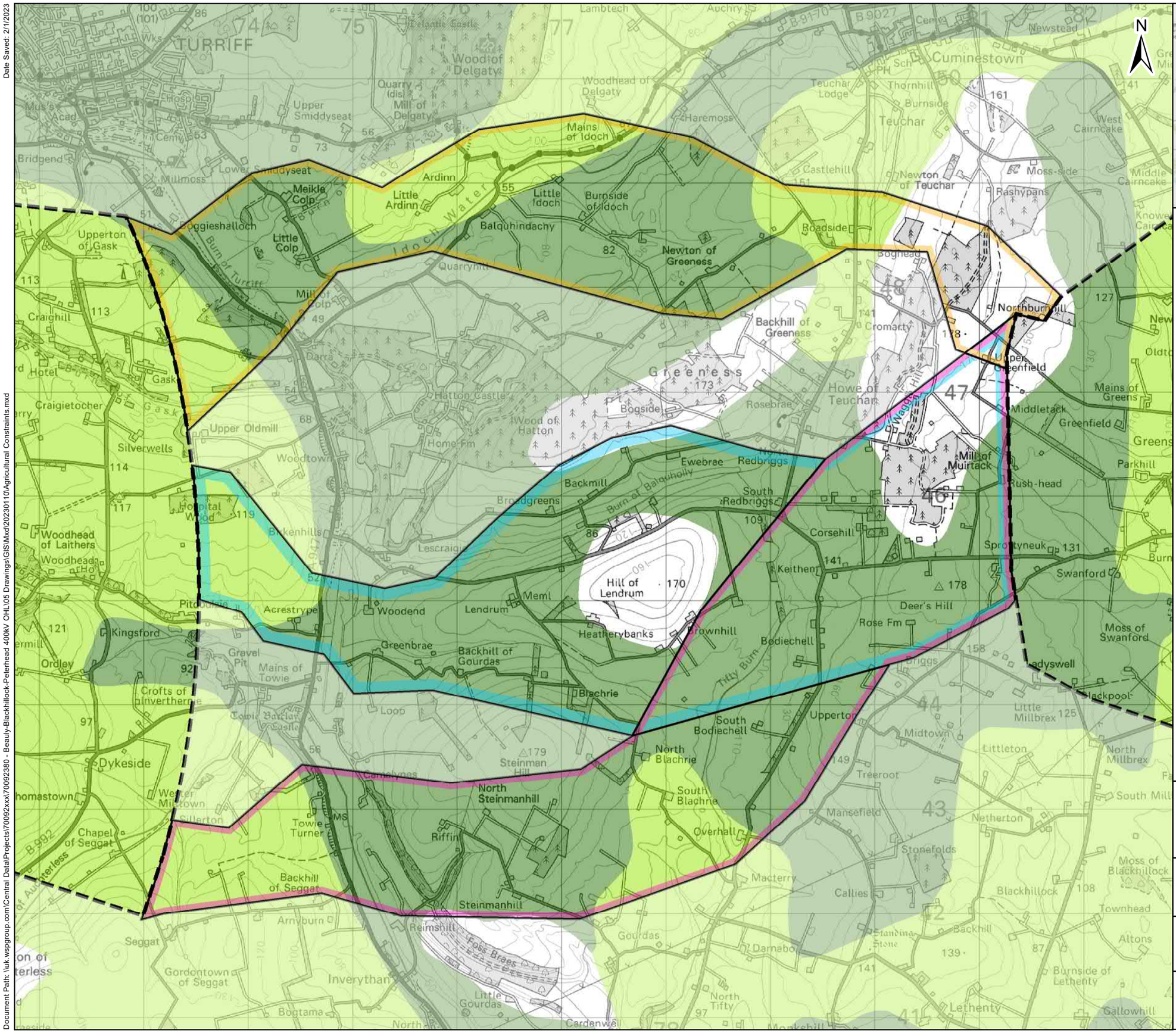

Legend

Route Options

- 🟧 10A
- 🟦 10B
- 🟪 10C
- ▭ Node

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 🟩 3.1
- 🟩 3.2

0 500 1,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints
Page 10 of 11

Date:	2/1/2023			Scale:	35,000 @ A3
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Drawing Number:	B2P-WSP-DA-70092380				

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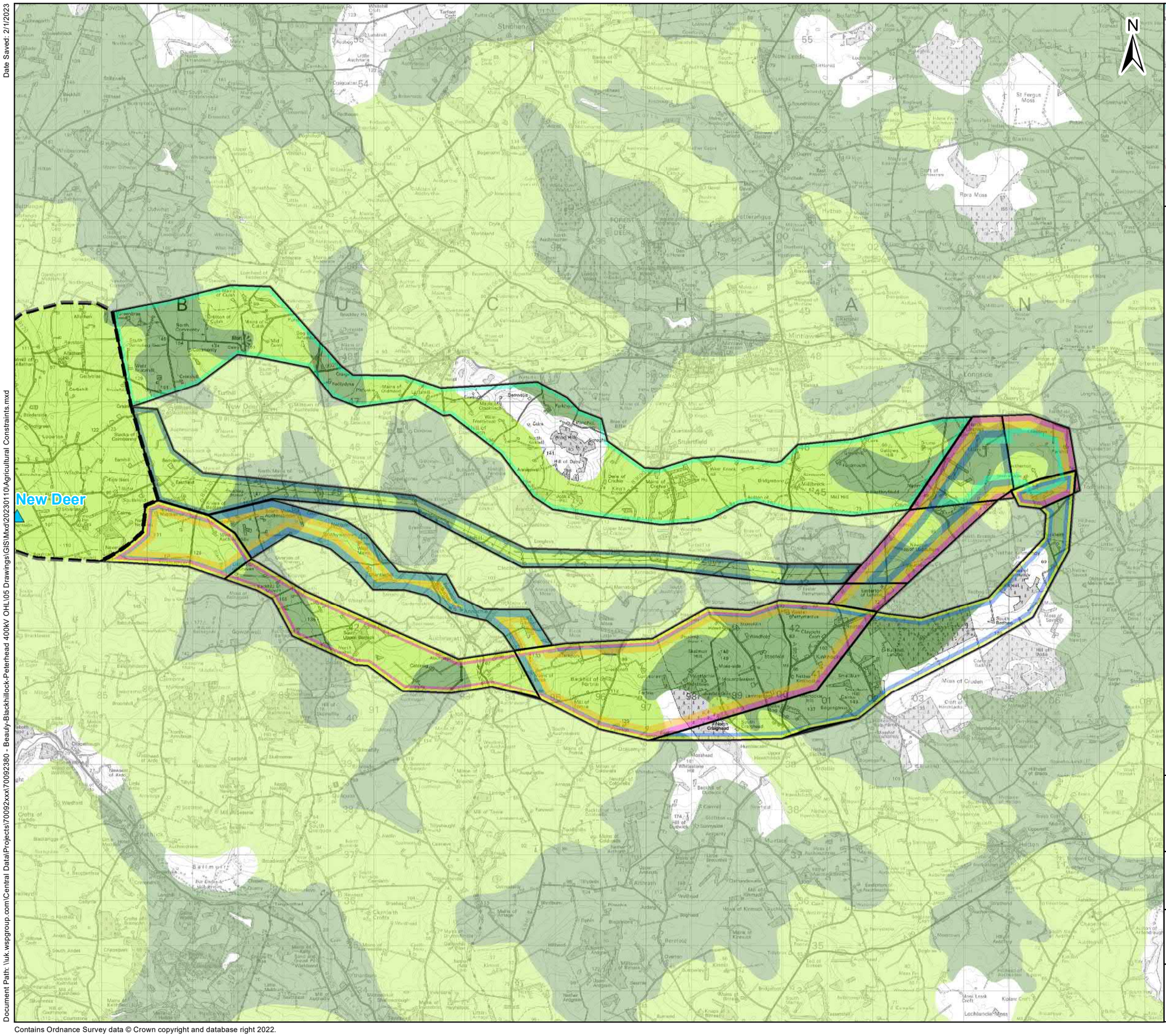

Legend

Existing Substation

Route Options

- 11A
- 11B
- 11C1
- 11C2
- 11C3
- 11C4
- Node

Constraints

Agricultural land - BMV (Grades 1,2,3.1,3.2)

- 3.1
- 3.2

0 5001,000

Metres

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 5.3: Agricultural Constraints
Page 1 of 11

Date: 2/1/2023 Scale: 80,000 @ A3

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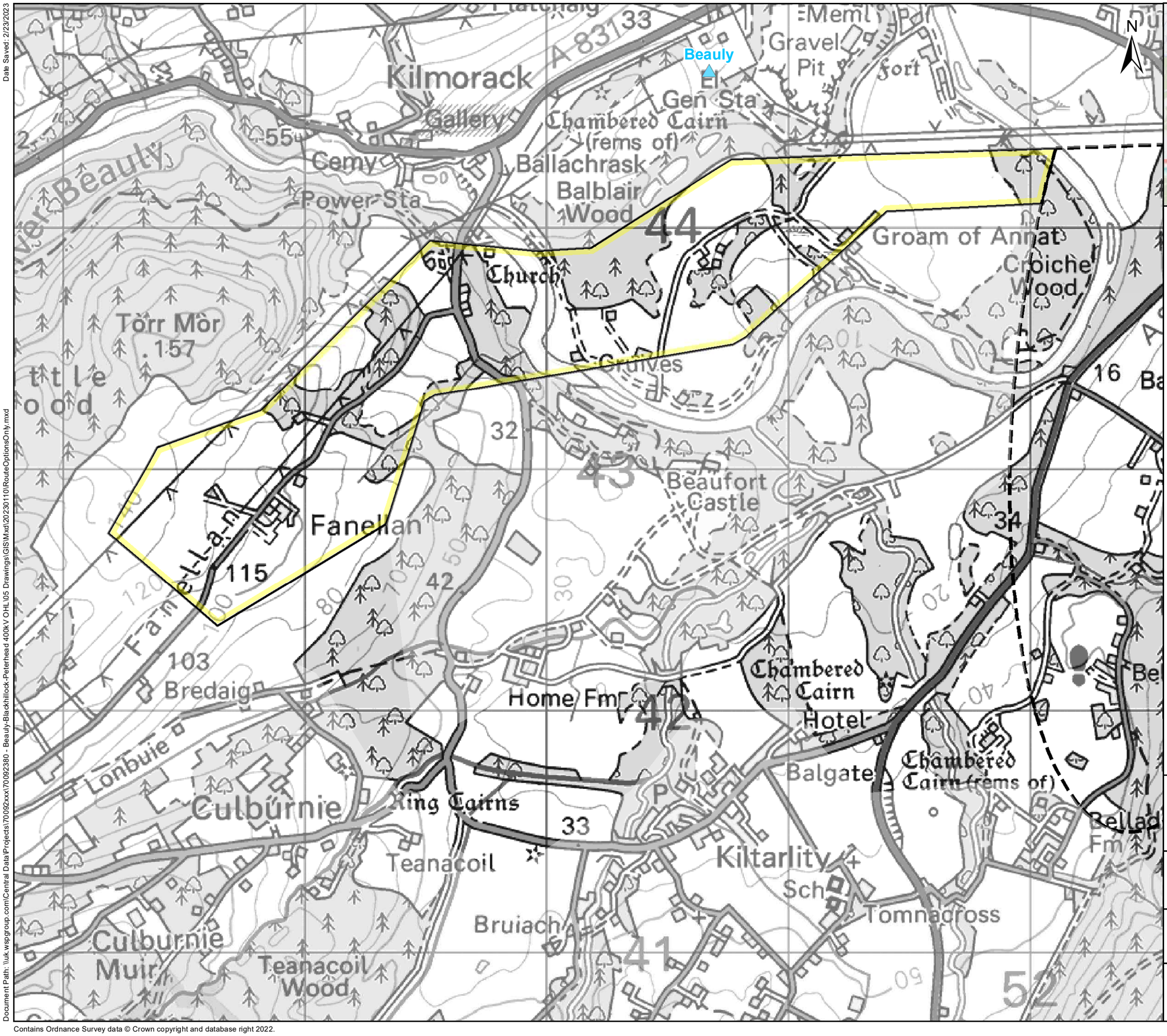

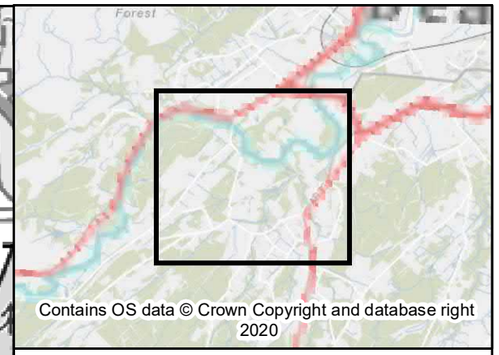

Legend

- Existing Substation

Route Options

- 1A
- Node

0 0.5 1

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 6.1 Preferred Route
Page 1 of 11

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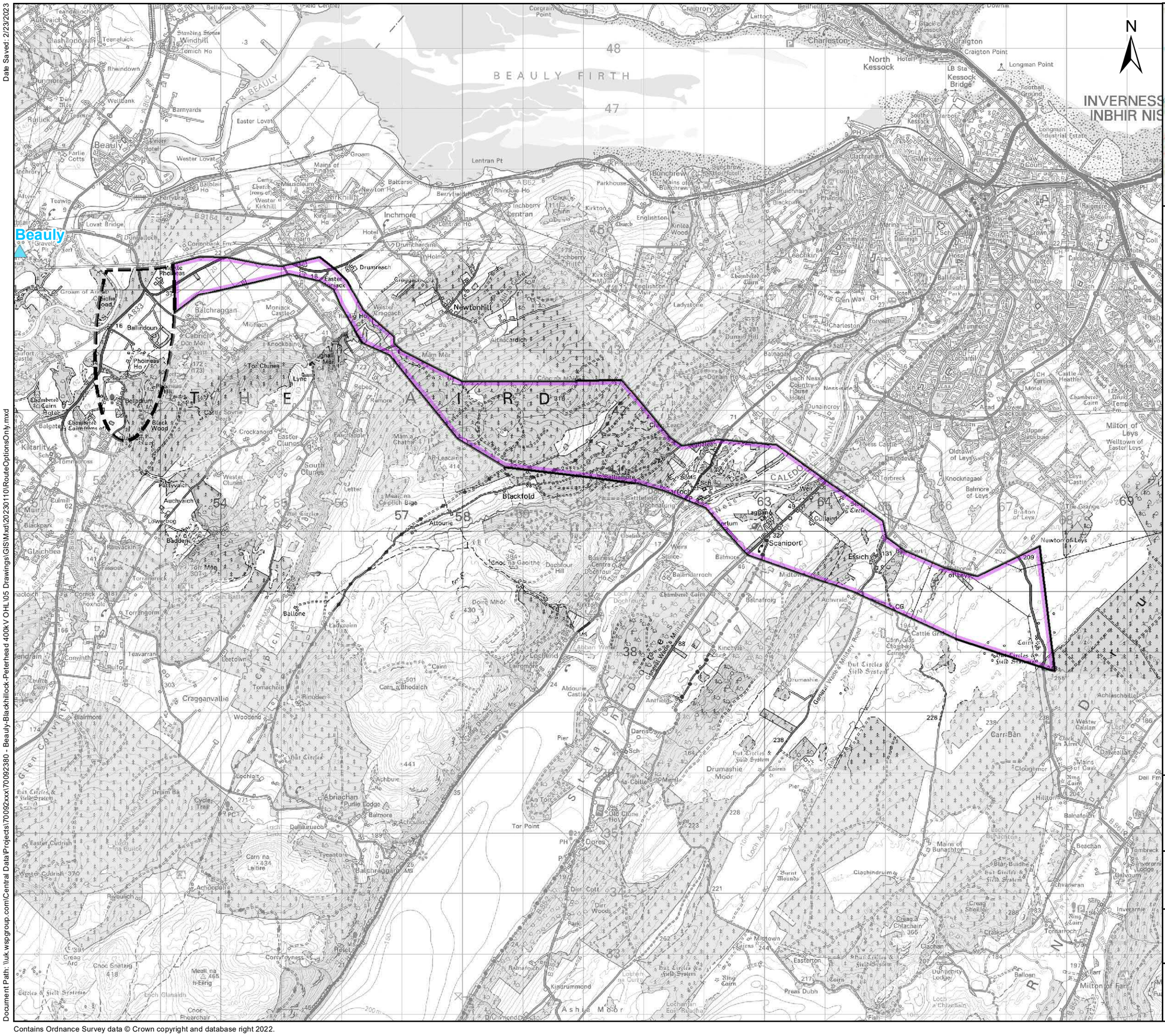

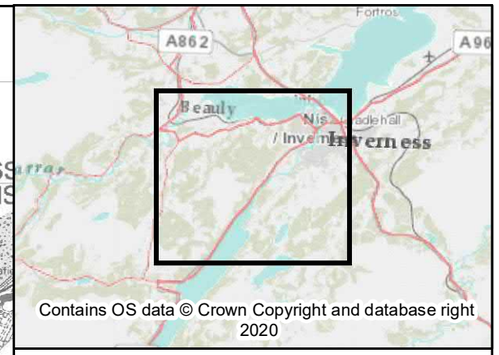

Legend

- Existing Substation
- 2A2
- Node

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 6.1 Preferred Route Page 2 of 11

Date: 2/23/2023 Scale: 60,000 @ A3

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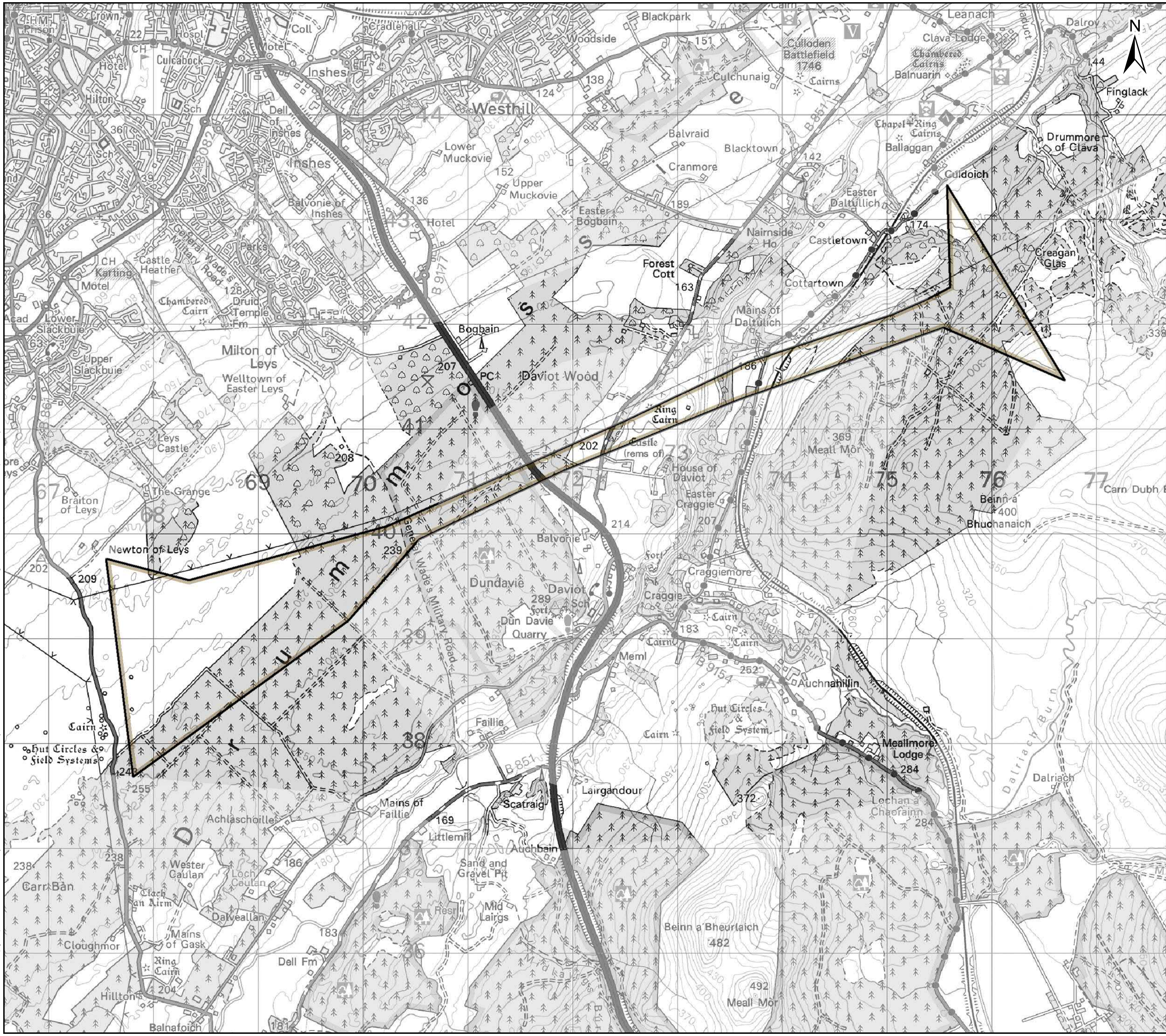

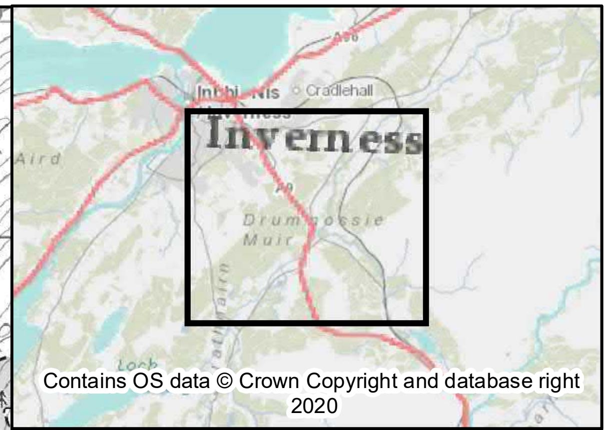

Legend

3B

0 1 2
Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 6.1 Preferred Route
Page 3 of 11

Date: 2/23/2023 Scale: 35,000 @ A3
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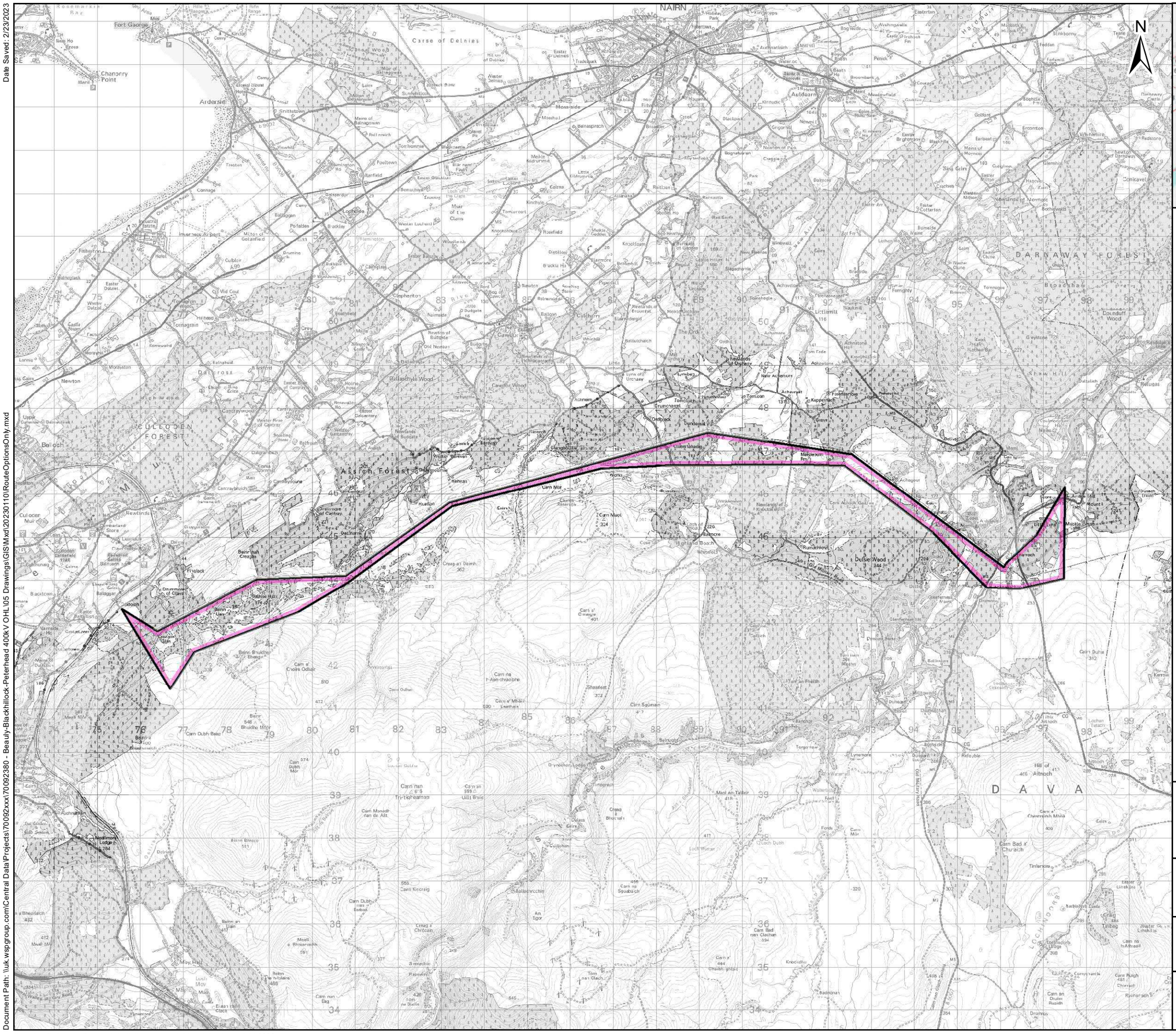

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Legend

▭ 4B

Client: Scottish & Southern Electricity Networks
TRANSMISSION

Project:
Beauly to Blackhillock to New Deer
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Title
Figure 6.1 Preferred Route
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Date: 2/23/2023 Scale: 85,000 @ A3
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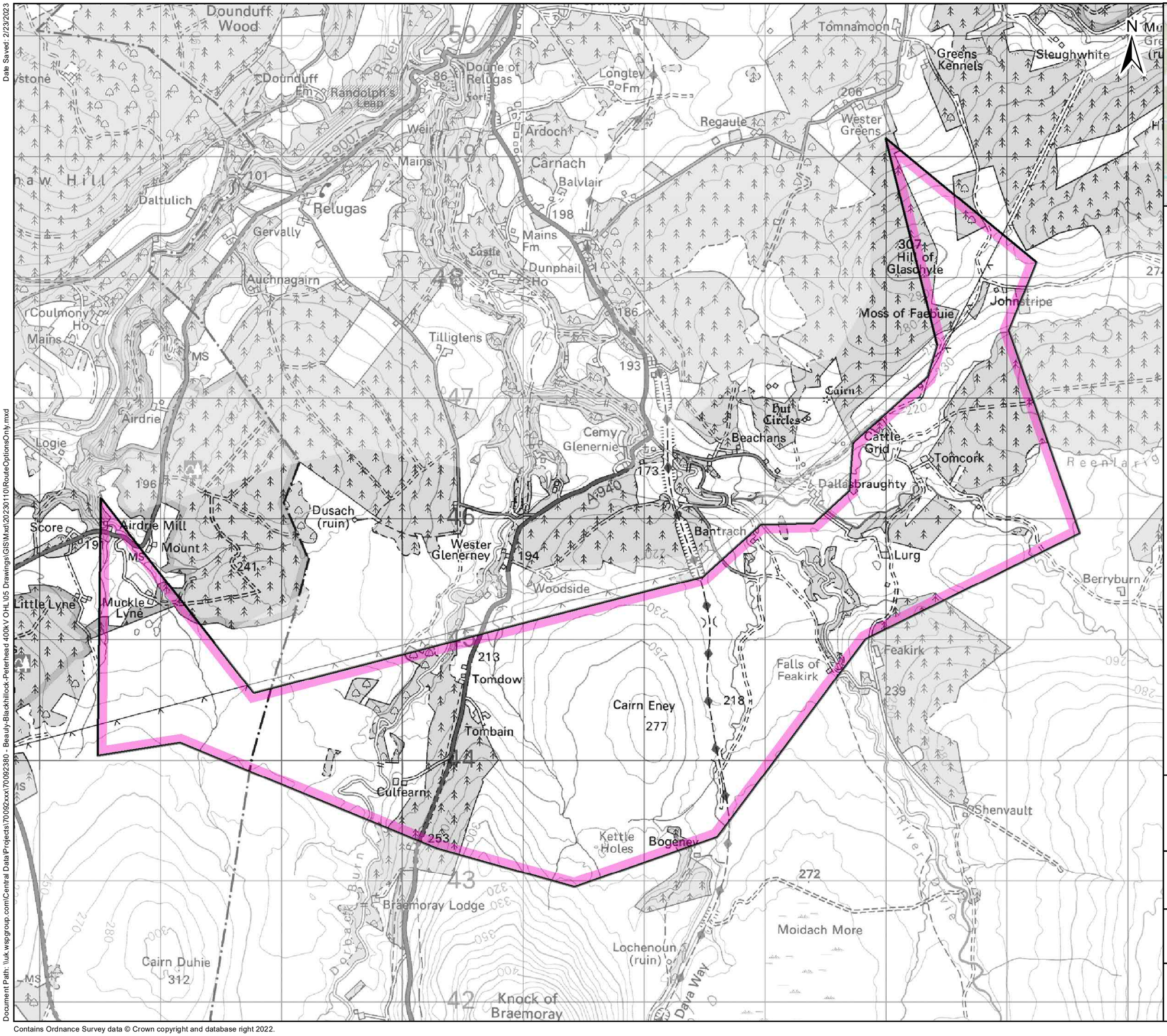

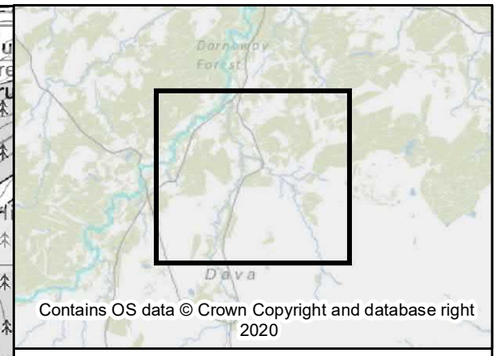

Legend

5B

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 6.1 Preferred Route
Page 5 of 11

Date: 2/23/2023 Scale: 30,000 @ A3

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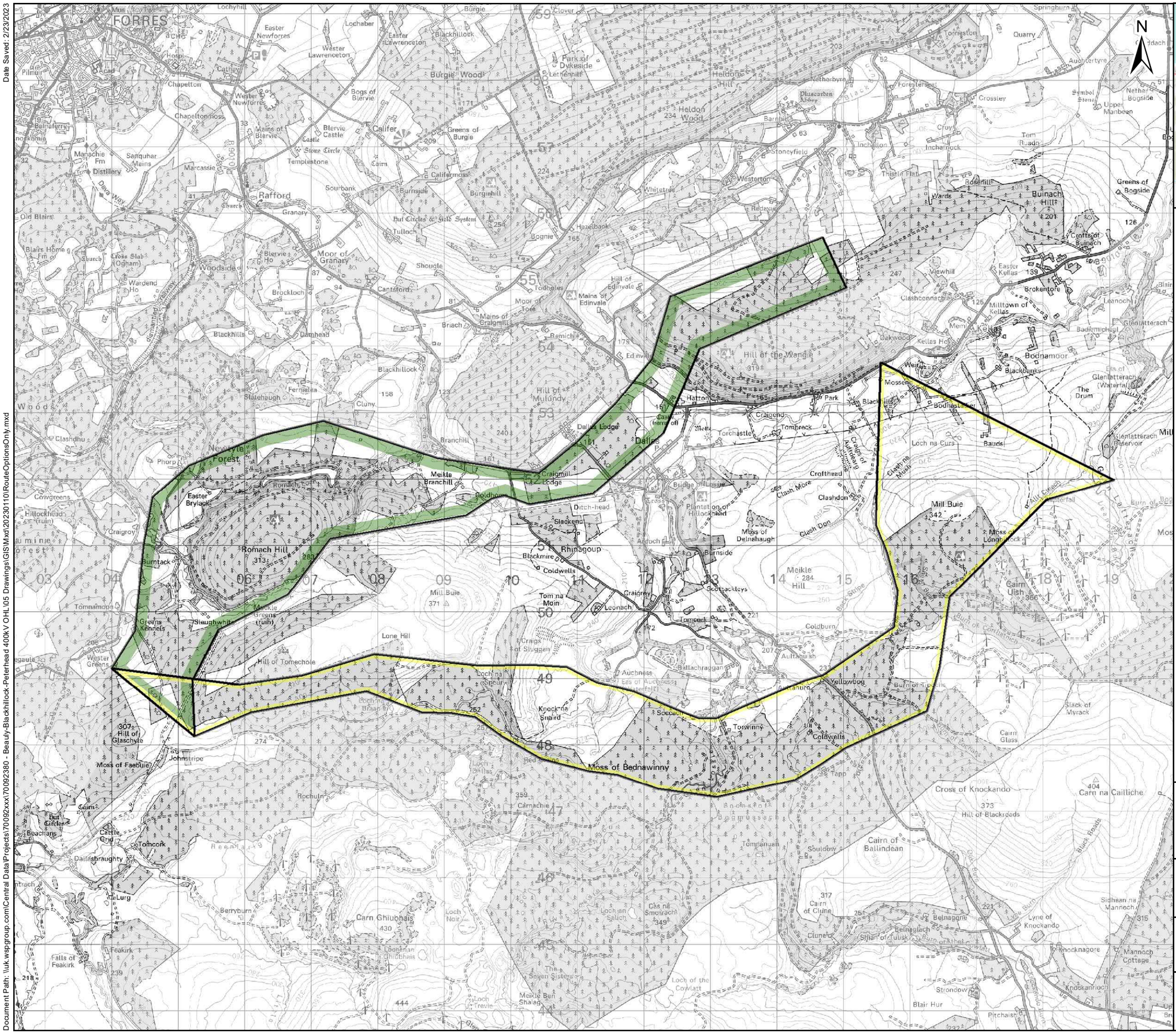

Legend

Route Options

- 6A1 Back-up option
- 6C Preferred Route

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 6.1 Preferred Route
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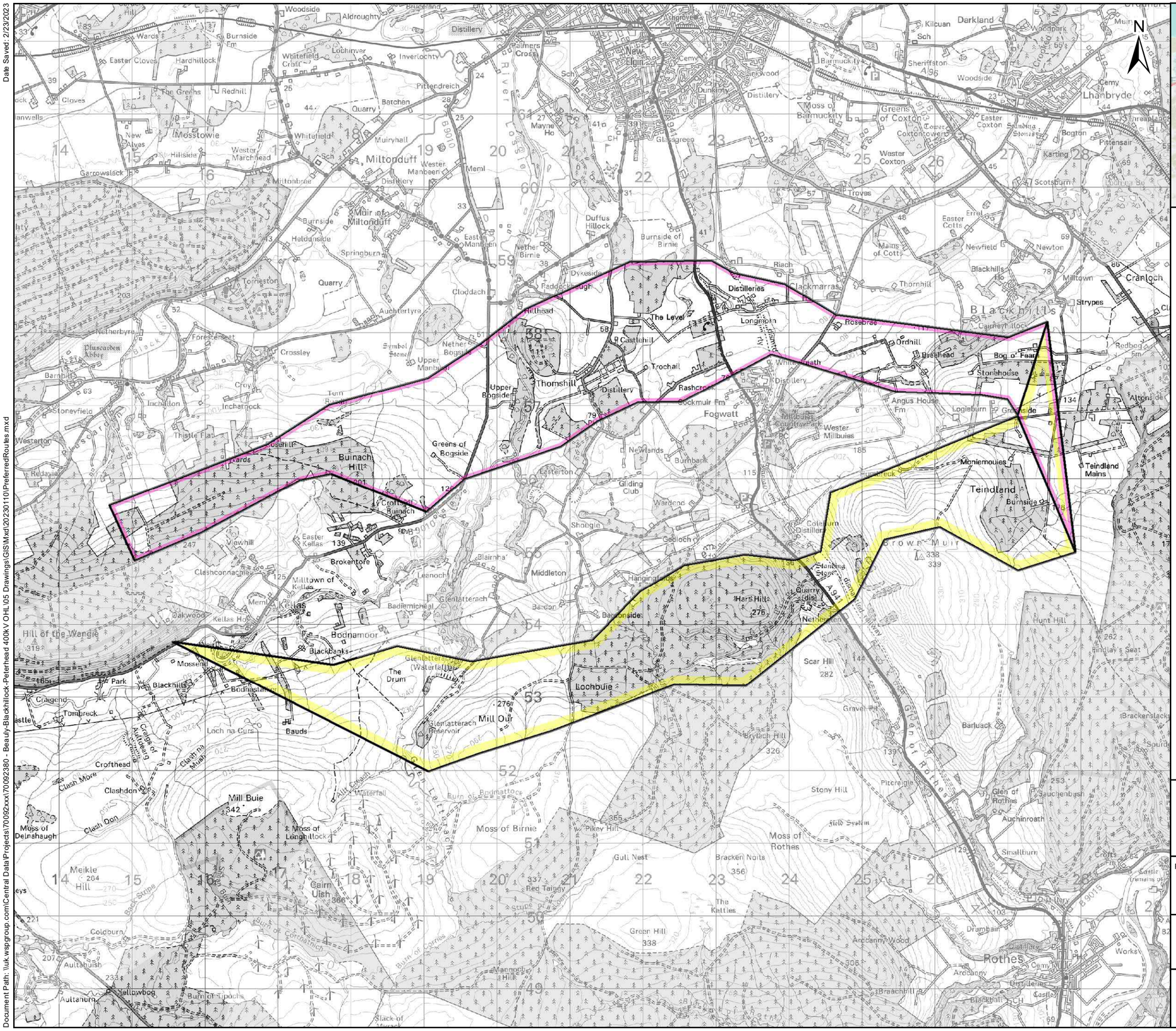

Client:

Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title
Figure 6.1 Preferred Route
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Date: 2/23/2023 Scale: 50,000 @ A3
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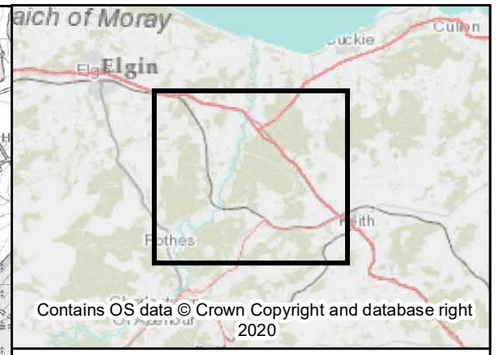

Legend

Route Options

- 8A1
- Node

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 6.1 Preferred Route Page 8 of 11

Date: 2/23/2023 Scale: 50,000 @ A3

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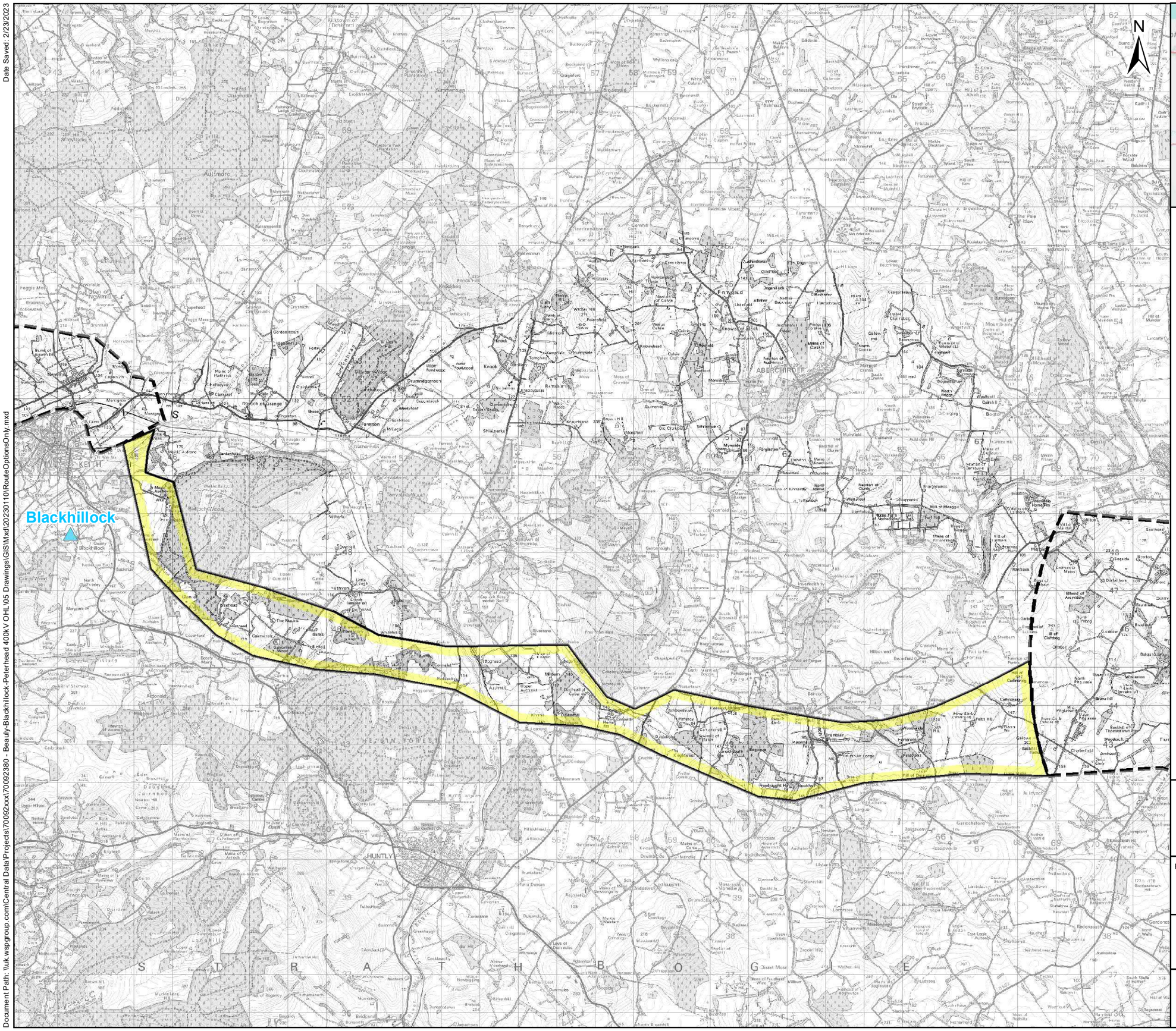

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Legend

- ▲ Existing Substation
- ▭ 9C2
- ⬚ Node

0 1 2
Kms

Client: Scottish & Southern Electricity Networks
TRANSMISSION

Project:
Beauly to Blackhillock to New Deer
to Peterhead 400 kV Connection

Title
Figure 6.1 Preferred Route
Page 9 of 11

Date: 2/23/2023		Scale:	95,000 @ A3
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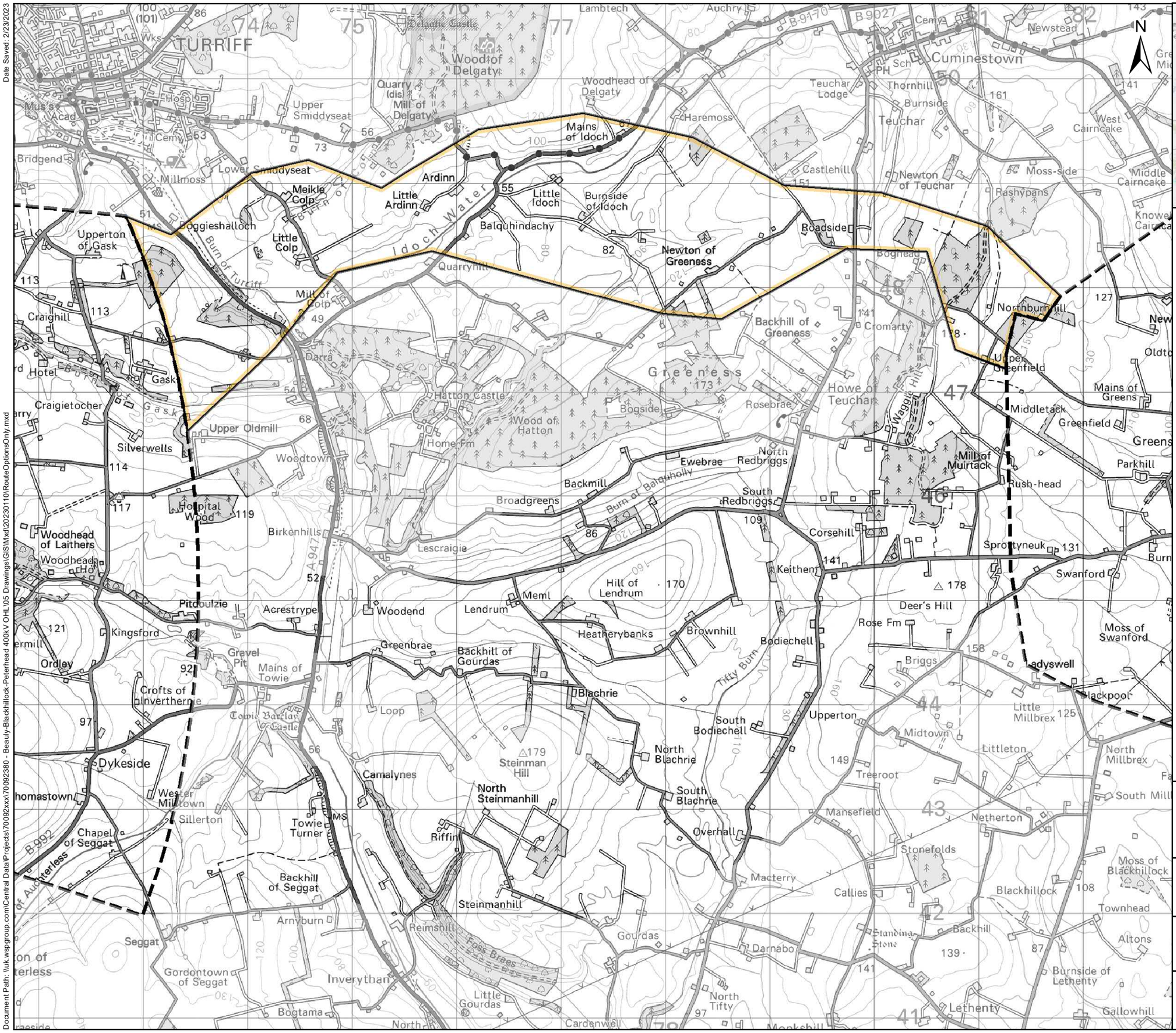

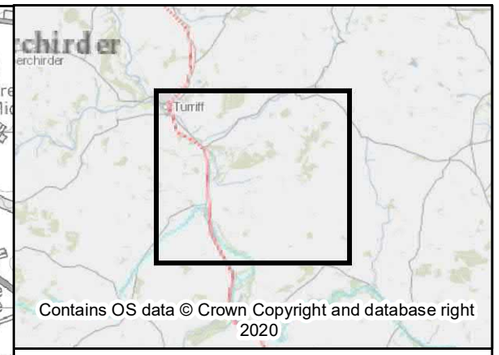

Legend

Route Options

- 10A
- Node

0 1 2

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 6.1 Preferred Route
Page 10 of 11

Date: 2/23/2023 Scale: 35,000 @ A3

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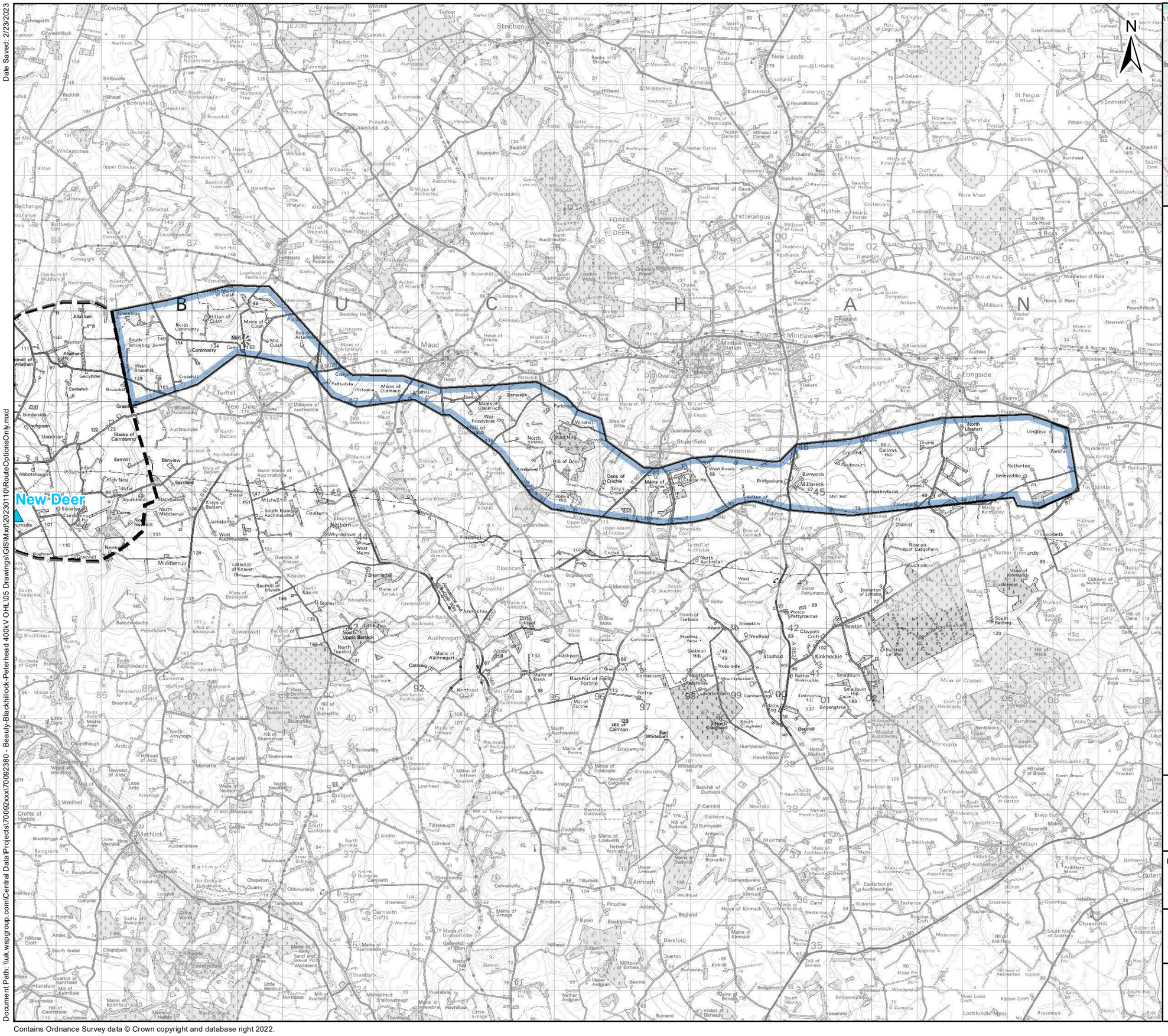

Legend

- Existing Substation

Route Options

- 11A
- Node

0 0.5 1

Kms

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 6.1 Preferred Route
Page 11 of 11

Date: 2/23/2023 Scale: 80,000 @ A3

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