

# **Report on Consultation - Route and Site Selection**

## **Red John Pump Storage Scheme 275kV**

### **Connection**

#### **July 2022**



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## GLOSSARY

Term	Definition
Above Ordnance Datum (AOD)	The term 'Ordnance Datum' refers to the height of mean sea level. Therefore, Above Ordnance Datum, means above the height of mean sea level.
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	Woodland which has been in continuous existence since before 1750 in Scotland and is important for biodiversity and cultural identity. Ancient semi-natural woodland is Ancient Woodland composed of mainly locally native trees and shrubs that derive from natural seed fall or coppice rather than from planting.
BNG	Biodiversity Net Gain
Centre Line	The linear connection between the central point of each support structure along the length of the overhead line.
Circuit	Overhead line or underground cable consisting of multiple conductors, to carry electric current.
Conductor	A metallic wire strung from structure to structure, to carry electric current.
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.
Desk-based Assessment	A desktop appraisal using existing information available.
Environmental Impact Assessment (EIA)	A formal process set down in The Electricity Works (EIA) (Scotland) Regulations 2017 used to systematically identify, predict and assess the likely significant environmental impacts of a proposed project or development.
European Protected Species	Species of plants and animals protected by law throughout the European Union.
Geographical Information Systems (GIS)	A spatial system that creates, manages, analyses, and maps all types of data.
Habitat	Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities.
Kilovolt (kV)	One thousand volts.
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).
Major Crossing	Major crossings include other electric lines of 132kV and above, railways, rivers/loch (200m+), navigable watercourses, motorways and other major roads, and major pipelines.
Micrositing	The process of positioning individual structures or infrastructure to avoid localised environmental or technical constraints.
Minor Crossing	Minor crossings include all road crossing and minor watercourses not considered major. Private tracks and driveways may also be considered where

Term	Definition
	the need for access to be maintained is present, or where relatively high traffic volumes are anticipated.
Mitigation	Term used to indicate avoidance, remediation or alleviation of adverse impacts.
Overhead line (OHL)	An electric line installed above ground, usually supported by lattice steel towers or wood poles.
Proposed Development	The construction and operation of an underground connection from the consented Red John 275kV Switching Station to the existing Knocknagael 275kV Substation which includes a site extension for the Knocknagael Substation.
RAG	Red/Amber/Green, rating applied for the comparative appraisal.
Report on Consultation Document	A report that documents the result of a consultation process.
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, where applicable.
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 The Highland Council 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 (Directive 74/409/EEC) to protect important bird habitats. Implemented under the Wildlife and Countryside Act 1981.
SSEN Transmission	Scottish and Southern Energy Networks Transmission, operating under licence held by Scottish Hydro Electric Transmission plc (SHET plc).
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.
Substation	Part of the electrical transmission and distribution system that transforms voltage from high to low, or the reverse, before switching to another electricity network.
The National Grid	The electricity transmission network in Great Britain.
Underground Cable (UGC)	An electric line installed below ground.

Term	Definition
Volts	The international unit of electric potential and electromotive force.

## EXECUTIVE SUMMARY

SSEN Transmission is proposing to construct and operate an underground cable connection from the consented Red John 275kV Switching Station associated with the consented 450MW Red John pump storage scheme to the existing Knocknagael 275kV Substation which includes a site extension to the Knocknagael Substation (the 'Proposed Development').

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.

The preferred route and site were both selected to provide an optimum balance of environmental, technical and economic factors through collaborative working approach between environment and engineering disciplines.

The approach to both route and site selection was informed by SSEN Transmission guidance 'Procedures for Routeing Overhead Lines and Underground Cables of 132kV and above' and 'Draft Substation Site Selection Procedures for Voltages at or above 132kV (Site Selection Guidance)'. By following the guidance, SSEN Transmission has ensured compliance with Schedule 9 of the Electricity Act 1989.

This Report on Consultation documents the consultation undertaken for the Proposed Development in April and May 2022. The programme of consultation was designed to engage with stakeholders including statutory and non-statutory consultees, local communities, landowners and individual residents in order to invite feedback on the rationale for and approach to, the selection of the preferred route and site.

This report describes the key responses received and provides detail on the actions proposed in response to the issues raised.

# 1. INTRODUCTION

## 1.1 Purpose of Document

Scottish and Southern Energy Networks Transmission (SSEN Transmission) is proposing to construct and operate an underground connection from the consented Red John 275kV Switching Station to the existing Knocknagael 275kV Substation and also a site extension to the Knocknagael Substation (the 'Proposed Development').

This Report on Consultation documents the consultation for the Proposed Development undertaken in April and May 2022, during the routeing and site selection option stage. A programme of consultation was designed to engage with key stakeholders including statutory and non-statutory consultees, local communities, landowners, and individual residents to invite feedback on the rationale for and approach to, the selection of the preferred route and site.

This report describes the key feedback received and details the actions taken by SSEN Transmission in response to the comments provided.

## 1.2 Document Structure

This report is comprised of eight sections as follows:

- 1: Introduction – setting out the purpose of the Report on Consultation Document;
- 2: The Proposals – describes the need for the proposals, the strategic alternatives considered, the proposed technology solution and the typical construction methods;
- 3: Consideration of Route Options – describes how the preferred route was identified;
- 4: Consideration of Site Options – describes how the preferred site was identified;
- 5: The Consultation Process – describes the framework for consultation and methods which have been employed;
- 6: Consultation Responses and Key Issues – summarises the range of responses and key comments arising from the public consultation and documents the statutory and non-statutory consultees whom responded through the consultation process;
- 7: Project Responses to Consultation – describes how the comments and issues raised statutory and non-statutory consultees during consultation will be addressed; and
- 8: Conclusions – provides a summary of the conclusions reached and actions going forward.

The main body of this document is supported by a series of figures and appendices.

## 2. THE PROPOSALS

### 2.1 Project Background

SSEN Transmission is a wholly owned subsidiary of the SSE plc group of companies. SSEN Transmission owns and maintains the electricity transmission network across the north of Scotland and holds a licence under the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical system of electricity transmission.

The consented Red John 450MW Pumped Storage (hydro) Scheme requires connection to the SSEN Transmission electricity network at Knocknagael substation by 2027.

#### 2.1.1 Red John Pumped Storage (hydro) Scheme Grid Connection

Due to the developer wanting certainty as to the consenting process, they have decided to pursue an underground cable route (the Proposed Development) from the Red John development to the substation at Knocknagael. This work can be undertaken via Permitted Development (PD) Rights as set out in under Class 40 1(a) of The Town and Country Planning (General Permitted Development) (Scotland) Order 1992 (TCP GDPO) and does not require planning permission.

#### 2.1.2 Knocknagael Substation Extension

As part of the works required to connect the Red John generation into the wider grid, it is necessary to undertake a substation extension at Knocknagael. The works will involve an extension of the existing footprint of the substation at Knocknagael within two distinct areas. The proposed connection requires a firm connection meaning that each of the two proposed circuits will need to be connected on either side of the bus section. This requirement dictates that the existing substation needs to be extended on two sides to allow the appropriate connection. The proposed development is in line with SSEN Transmission's commitment and licence obligation to facilitate the connection of renewable generators to the grid through an economical, efficient and coordinated approach to transmission reinforcement.

### 2.2 Project Description

#### 2.2.1 Red John Pumped Storage (hydro) Scheme Grid Connection

A full underground cable solution is proposed to mitigate the following issues:

- Landscape and visual impacts;
- Impact to bird species associated with the nearby Loch Ashie SPA; and
- The additional complexity of consenting an overhead line.

#### *Construction Activities*

Key tasks during construction of underground cable (UGC) will involve:

- Enabling work (e.g. forestry clearance, public road improvements and establishment of temporary works such as construction drainage and site compound/welfare);
- Construction of permanent and temporary access roads and drainage;
- Excavation of cable trench;
- Installation of electrical equipment;
- Installation of cable ducts and joint bays;
- Inspections and commissioning; and
- Removal of temporary works and site reinstatement.

### *Access During Construction*

The access strategy has not yet been determined. Where possible, existing access tracks will be used and upgraded as required. New access tracks may be required and where there is a justified long-term requirement, they will be left in place. Where ground conditions permit, it is preferable to construct the infrastructure without an access track (e.g. on dry and level pasture). Temporary matting may be used in sensitive areas subject to an assessment of gradients and ground conditions.

New access tracks (permanent or temporary) would generally be constructed using a geotextile, with approximately 200 mm of crushed and compacted stone laid on top. Tracks may be floated over areas of peat, or may use cut and fill approaches, subject to ground conditions and gradients.

### *Forestry Removal*

Construction of the Proposed Development would require the removal of sections of forestry, which would be undertaken in consultation with Scottish Forestry and affected landowners.

After felling, any timber removed that is commercially viable would be sold and the remaining forest material would be dealt with in a way that delivers the best practicable environmental outcome and is compliant with waste regulations.

An operational corridor would be required to enable the safe operation and maintenance of the UGC. This will vary depending on the type of woodland (based on species present) in proximity to the UGC.

## 2.2.2 Knocknagael Substation Extension

### *Construction Activities*

Key tasks during construction of the substation are as follows:

- Enabling work (e.g. forestry clearance, public road improvements and establishment of temporary works such as construction drainage and site compound/welfare);
- Construction of cut/fill to provide a level platform;
- Construction of permanent access roads and drainage;
- Construction of civil engineering infrastructure;
- Installation of mechanical/electrical equipment;
- Inspections and commissioning; and
- Removal of temporary works, landscape design implementation (if required) and site reinstatement.

### *Access During Construction*

The access strategy has not yet been determined. Where possible, existing access tracks will be used and upgraded as required. New access tracks may be required and where there is a justified long term requirement, they will be left in place. Where ground conditions permit, it is preferable to construct the infrastructure without an access track (e.g. on dry and level pasture). Temporary matting may be used in sensitive areas subject to an assessment of gradients and ground conditions.

New access tracks (permanent or temporary) would generally be constructed using a geotextile, with approximately 200 mm of crushed and compacted stone laid on top. Tracks may be floated over areas of peat, or may use cut and fill approaches, subject to ground conditions and gradients.

## 2.2.3 Biodiversity Net Gain

SSEN Transmission has a target to achieve No Net Loss (NNL) on all projects gaining consent from April 2020 and Net Gain (NG) on projects gaining consent from April 2025.

As part of the route and site selection optioneering process, a Biodiversity Net Gain (BNG) assessment has been undertaken against each option presented. Further BNG assessment will be undertaken during the next stage of alignment and site selection.

#### 2.2.4 Programme

The current programme for the Project, which is subject to change, is as follows:

- Construction Start: November 2024; and
- Construction complete and UGC operational: July 2027.

## 3. CONSIDERATION OF ROUTE OPTIONS

### 3.1 Introduction

The approach to route selection is informed by the following SSEN Transmission guidance:

- Procedures for Routeing Overhead Lines and Underground Cables of 132kV and above, SSEN Transmission, 2020 (PR-NET-ENV-501) (Routeing Guidance); and
- Biodiversity Net Gain Flow Chart, Guidance and Project Toolkit (FC-NET-ENV-500).

The guidance develops a process which aims to balance environmental, technical and economic considerations throughout a staged route options process.

The principal routeing stages are:

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

For certain projects, such as Red John Pumped Hydro Storage Scheme Grid Connection, Stage 1 is not required due to the small scale of the project. As a result, the consultation document presented the appraisal completed at Stage 2 – Route Selection.

In consideration of the above, the method of identifying a preferred route option in this study has involved the following four key tasks:

- Identification of the baseline;
- Identification of alternative route options;
- Environmental, technical and economic analysis of route options; and
- Identification of a preferred route option.

### 3.2 Route Identification and Selection

Route options were identified following site appraisals, that considered the constraints identified during the desk-based baseline studies. The following has been taken into account during route selection (Stage 2) and will be considered in more detail at the next stage - alignment selection (Stage 3).

- Avoid if possible major areas of highest amenity value (including those covered by national and international designations and other sensitive landscapes);
- Avoid by deviation, smaller areas of high amenity value; and
- Technical issues related to clearances, connectivity, outages, maintenance, and faults.

Indicative routes have been identified at 1 km widths (although this depends on site specific constraints and the route may be wider or narrower in places), to allow for subsequent identification of alignments during the next stage of the process.

## 4. CONSIDERATION OF SITE OPTIONS

### 4.1 Introduction

The approach to site selection is informed by the following SSEN Transmission guidance:

- Draft Substation Site Selection Procedures for Voltages at or above 132kV (Site Selection Guidance); and
- Biodiversity Net Gain Flow Chart, Guidance and Project Toolkit (FC-NET-ENV-500).

The guidance develops a process which aims to balance environmental, technical and economic considerations throughout a staged site options process.

### 4.2 Site Identification and Selection

Five sites have been appraised based on SSEN guidance; Substation Site Selection Procedures for Voltages at or above 132 kV. This includes Annex A; Holford Rules: Supplementary Notes of the Siting of Substations. The following considerations have been taken into account during site selection:

- Respect areas of high amenity value and take advantage of the containment of natural features such as woodland, fitting in with the landscape character of the area.
- Take advantage of ground form with the appropriate use of site layout and levels to avoid intrusion into surrounding areas.
- Use space effectively to limit the area required for development, minimising the effects on existing land use and rights of way.
- Alternative designs of substations may also be considered, e.g. 'enclosed', rather than 'open', where additional cost can be justified.
- Consider the relationship of towers and substation structures with background and foreground features, to reduce the prominence of structures from main viewpoints.
- When siting substations take account of the effects of line connections that will need to be made.

## 5. THE CONSULTATION PROCESS

### 5.1 Overview

In accordance with the SSEN Transmission guidelines, a process of consultation on the preferred route and site options was implemented. This section identifies the methods of consultation and the key dates when consultation took place.

### 5.2 Methods of Consultation

Following identification of a preferred route and site, a consultation document was produced and distributed for comment in April 2022. The consultation document describes the need for the project development and the rationale for the preferred route and site.

The consultation process comprised the following:

- The Consultation Document was submitted to key statutory and non-statutory stakeholders inviting comments (April 2022);
- The Consultation Document was made available on the SSE website at <https://www.ssen-transmission.co.uk/projects/red-john-pump-storage-scheme-275kv-connection/> from 27th April 2022;
- A summary information leaflet was made available during the public exhibition detailed below; and
- A public exhibition was held at Lochardil House Hotel in Inverness on Thursday 28<sup>th</sup> April 2022 between 14:00 and 19:00.

The consultation period closed on Friday 27th May 2022. Responses were received via a variety of methods, including completed feedback forms, emails and written letters.

### 5.3 Consultees

Table 5.1 lists the statutory and non-statutory organisations invited to consider the Consultation Document.

**Table 5.1: List of Statutory and Non-Statutory Consultees**

Statutory Consultees	
NatureScot	Historic Environment Scotland (HES)
The Highland Council	Scottish Environment Protection Agency (SEPA)
Transport Scotland	
Non-Statutory Consultees	
Scottish Water	Scottish Forestry
RSPB Scotland	Forestry and Land Scotland
Sustrans Scotland	Fisheries Management Scotland
British Horse Society	Defence Infrastructure Organisation
BT	Joint Radio Company
John Muir Trust	Mountaineering Scotland
NATS Safeguarding	Scottish Rights of Way and Access Society (ScotWays)
Scottish Wildlife Trust	Scottish Wild Land Group (SWLG)
Visit Scotland	Highland and Islands Airports
West of Scotland Archaeology Service	The Coal Authority
Highland Raptor Study Group	Scottish Raptor Study Group
Ness District Salmon Fishery Board	Civil Aviation Authority - Airspace
Community Councils, Politicians and Others	

<b>Statutory Consultees</b>	
Dores and Essich Community Council	Strathdearn Community Council
Lochardil and Drummond Community Council	Strathnairn Community Council
Stratherrick and Foyers Community Council	Holm Community Council

#### **5.4 Public Consultation**

Consultation on the project included a face-to-face public engagement event. The purpose of this event was to provide information and to seek the views and comments of members of the public, local stakeholders and statutory consultees. The event took place on the Thursday 28<sup>th</sup> April 2022 at Lochardil House Hotel in Inverness, from 14:00 to 19:00.

The consultation material was made available in booklet format at the event and online, allowing members of the public and opportunity to access and view the material until the feedback period closed on Friday 27<sup>th</sup> May 2022.

## 6. CONSULTATION RESPONSES AND KEY ISSUES

### 6.1 Summary of Comments

In total, 13 consultation responses were received during the consultation process. A list of the statutory and non-statutory consultees who responded is set out in Table 6.1. One further consultation response was received from a member of the public.

**Table 6.1: Statutory and Non-Statutory Consultee Respondents**

BT	NatureScot
The Coal Authority	Ness District Salmon Fishery Board
Dores and Essich Community Council	RSPB Scotland
Highland and Islands Airports	Scottish Water
Historic Environment Scotland (HES)	Transport Scotland
NATS Safeguarding	West of Scotland Archaeology Service

All consultation responses received during the consultation period have been collated and summarised into a consultation register. This register remains an active document and will be updated on receipt of further consultation comment.

Whilst recognising that this consultation was not part of a formal EIA screening procedure, the statutory and non-statutory consultees gave informative responses and identified where an option may necessitate specialists survey or would require careful design or mitigation to avoid sensitive features.

Consultees provided a response on the preferred route and site options and identified opportunities or any potential issues.

### 6.2 Issues Emerging from Consultation Feedback

Responses covered a range of topics and raised specific issues in relation to the preferred route but not the site option. A number of respondents expressed 'in principle' support for the preferred route and site options.

Common themes emerging from the consultation responses received related to:

- Loch Ashie SPA and the consideration of what impact the work will have on the SPA with particular focus on disturbance of birds;
- Priority habitats in addition to designated sites and Highland raptor data;
- Traffic and transport;
- BNG; and
- Public drinking water catchments.

## **7. PROJECT RESPONSES TO CONSULTATIONS**

### **7.1 Overview**

This section documents how the preferred route and site set out within the Consultation Document has subsequently responded to the issues emerging from the consultation feedback.

### **7.2 Responses Relevant to Subsequent EIA**

Some consultation responses related to specific environmental issues appropriate to consider when defining and delivering the scope of the Proposed Development.

Table 7.1 summarises the environmental issues raised, with relevance to the Proposed Development and the SSEN Transmission response.

Topic	Comment received	SSEN Transmission Response
Ornithology	<p>NatureScot stated that the preferred route B runs adjacent to Loch Ashie Special Protection Area, classified for Slavonian Grebe, Passage. Loch Ashie SPA regularly supports a population of European importance of the species. With an autumn gathering of (up to 60 individuals, up to 15% of the GB population). This is the most important known moult site in Scotland.</p> <p>They advise that an application going forward needs to consider what impact the work will have on the site with particular focus on disturbance of birds during the moult in the autumn.</p> <p>They welcome the proposal to underground the cable as this will limit impacts on birds arriving and leaving the loch before and after the moult.</p> <p>NatureScot did not have any comments to make on the proposed substation extension.</p>	<p>During the alignment and Environmental Assessment stage, SSEN Transmission will assess the potential impact of the route on SPA qualifying species. Habitat Regulations Appraisal will be undertaken.</p>
	<p>RSPB Scotland stated that although the preferred route is in close proximity to the Loch Ashie SPA, careful consideration of timing of works should prevent impacts on moulting and breeding Slavonian grebe. They noted that it is proposed that work would start from November with work closest to the Loch being completed by the end of March. However, if work is likely to continue into the breeding season, then bird surveys will be required to inform timing of works and prevent disturbance and/or nest destruction.</p> <p>It was also stated on page 3 of the Consultation Document that '<i>Vantage point surveys are being undertaken in 2021/22 to understand the interaction between birds and potential overhead lines along the routes.</i>' However, RSPB Scotland felt it was unclear how/when this information will be incorporated into the decision making and consultation process and the current proposal relates to underground cable connection.</p> <p>RSPB Scotland welcome the aim to secure biodiversity net gain, but they have some concerns about the approach used and provide comments that might help refine this approach for other projects. The BNG Appraisal says to refer to the BNG report for further detail, but this does not seem to be available.</p> <p>RSPB Scotland stated that the data sources used to identify potential environmental constraints do not include any priority habitats away from designated sites and do not include searches for RSPB or Highland raptor study group data. It is therefore difficult to understand what the RAG rating for ornithology is based on and how much it differs from the 'designations' rating. In previous consultations on route appraisals, data from a data request to RSPB and Highland Raptor Study Group has been included to inform assessments. RSPB Scotland therefore noted it would be useful to know why this does not seem to have been done in this case.</p> <p>RSPB Scotland stated that for Route B, the preferred route, (and routes A and C) there</p>	<p>During the alignment stage, SSEN Transmission will assess the potential impact of the route on SPA qualifying species. SSEN also acknowledge that if construction is to continue into the breeding bird season, then bird surveys will be required to inform timing of works and prevent disturbance and/or nest destruction.</p> <p>Vantage point surveys were mentioned in error and are not currently being undertaken.</p> <p>BNG assessment and reporting has been undertaken for the routeing and site selection stage. This will be refined and updated through the next stage of site and alignment selection. This will be assessed based on site survey.</p> <p>A data request to RSPB and the Highland raptor study group will be completed at the next stage of site and alignment selection.</p> <p>Caledonian forest will be fully considered at the alignment stage.</p>

Topic	Comment received	SSEN Transmission Response
	<p>would be a predicted impact on Annex 1 habitat H91C0 Caledonian forest and ancient woodland sites. However, as the Caledonian forest has not been mapped there is no indication as to how much will be impacted and whether impacts could be avoided with micro-siting. It is also unclear if impacts on ancient woodland and Caledonian forest are included in the 'habitats' or 'forestry' RAG rating. Impacts on ancient woodland have not been included in the 'pros and cons' tables in the booklet. The report states: '<i>Biodiversity Units in underground cabling sections are presented as temporary loss, based on the assumption that the habitat will be restored once the cable has been laid.</i>' However, impacts on Caledonian forest cannot be mitigated, and it is assumed that this would make up part of the 1,284.45 'units' of irreplaceable habitats. RSPB Scotland hope that further detail on how and where biodiversity net gain will be delivered for this project will be provided at the next stage once the preferred route option is decided upon.</p> <p>RSPB Scotland had no comments on the preferred location for the site extension of the Knocknagael substation.</p>	
Woodland	<p>A public comment at the public exhibition event noted the presence of native trees to the west of the unclassified public road (U1096) to the west of the existing Knocknagael substation in the vicinity of Ordnance Survey (OS) mapped 'wells'. The member of the public asked for the final alignment to consider avoidance of the need to fell the trees.</p>	<p>SSEN Transmission will seek an alignment that avoids trees wherever practicable.</p>
Fisheries	<p>Ness District Salmon Fishery Board agreed that the preferred option (Route B) is the most appropriate. Their interests in the area are mainly focussed on hydrology and Route B appears to have the least potential impact on the hydrology of the area and avoids the main catchments (primarily the upper reaches of the Holm Burn/Big Burn). This watercourse is already heavily impacted by abstraction and historic straightening.</p> <p>Ness District Salmon Fishery Board noted that if any data on fish populations within the proposed route is required, or there is a need for any fish surveys in connection with the cable route, they may be able to assist.</p>	<p>If any data on fish populations within the proposed route is required, or there is a need for any fish surveys in connection with the cable route SSEN Transmission will consult further Ness District Salmon Fishery Board.</p>
Hydrology and Geology	<p><u>Drinking Water Protected Areas</u></p> <p>Scottish Water noted there are no drinking water catchments or water abstraction sources, which are designated as Drinking Water Protected Areas under the Water Framework Directive, in the area where the substation is to be located.</p> <p>However, the cable route options do fall within drinking water catchments where a Scottish Water abstraction is located. Scottish Water abstractions are designated as Drinking Water Protected Areas (DWPA) under Article 7 of the Water Framework Directive.</p> <p>Loch Ness supplies Invermoriston Water Treatment Works (WTW), Loch Ashie and Loch</p>	<p>During future stages of the project, SSEN Transmission will consult further with Scottish Water to identify the most appropriate mitigation to protect water quality.</p>

Topic	Comment received	SSEN Transmission Response
	<p>Duntelchaig supply Inverness Loch Ashie (WTW) and Loch and it is essential that water quality and water quantity in the area are protected. In the event of an incident occurring that could affect Scottish Water, they should be notified without delay using the Customer Helpline number 0800 0778 778.</p> <p>This presents a high risk to water quality and therefore Scottish Water would request further involvement at more detailed design stages to determine the most appropriate proposals and mitigation within the catchment to protect water quality and quantity.</p> <p>The fact that this area is located within a drinking water catchment should be noted in future documentation. Also anyone working on site should be made aware of this during site inductions. Further information should be sent to the Sustainable Land Management team by contacting us via <a href="mailto:protectdwsources@scottishwater.co.uk">protectdwsources@scottishwater.co.uk</a></p> <p><u>Scottish Water Assets</u></p> <p>There are no assets that appear to be affected by the proposed substation location.</p> <p>However, there are a large number of Scottish Water assets potentially affected by the cable route. This should be confirmed through obtaining plans from Scottish Water Asset Plan Providers. Details of their Asset Plan Providers are included in the Scottish Water list of precautions for assets, which can be found on the activities within their catchments page of their website at <a href="http://www.scottishwater.co.uk/slm">www.scottishwater.co.uk/slm</a>.</p> <p>All Scottish Water assets potentially affected by the activity should be identified, with particular consideration being given to access roads and pipe crossings. If necessary, local Scottish Water personnel may be able to visit the site to offer advice. All of Scottish Water's processes, standards and policies in relation to dealing with asset conflicts must be complied with.</p> <p>In the event that asset conflicts are identified then early contact should be made with HAUC Diversions Team via the Development Services portal - <a href="https://swastroprodweb.azurewebsites.net/home/default">https://swastroprodweb.azurewebsites.net/home/default</a>. All detailed design proposals relating to the protection of Scottish Water's assets should be submitted to the HAUC for review and written acceptance. Works should not take place on site without prior written acceptance by Scottish Water.</p> <p>Scottish Water have produced a list of precautions for a range of activities. The list of precautions for assets details protection measures to be taken if there are assets in the area. Please note that site specific risks and mitigation measures will require to be assessed and implemented. The document/s and other supporting information can be found on the activities within our catchments page of our website at <a href="http://www.scottishwater.co.uk/slm">www.scottishwater.co.uk/slm</a>.</p>	<p>SSEN Transmission will review the Scottish Water Asset Plans and confirm any that would be potentially affected by the route. Contact would then be made with HAUC Diversions Team as required.</p> <p>Scottish Water provided copies of its list of precautions for which the Proposed Development will require to adhere to. These are included in Appendices A and B.</p>

Topic	Comment received	SSEN Transmission Response
	<p>It should be noted that the proposals will be required to comply with Sewers for Scotland and Water for Scotland 4th Editions 2018, including provision of appropriate clearance distances from Scottish Water assets.</p>	
<p>Access, Traffic and Transport</p>	<p>Transport Scotland noted that the three route options and five site options are located south of Inverness and northeast of Loch Ness, with the nearest connection to the A82(T) being approximately 6.3km to the north.</p> <p>Consequently, as the options will not impact on the trunk road network, Transport Scotland had no opinion to offer on either the route options or the substation site options.</p> <p>It should be noted, however, that Transport Scotland will require to be consulted on any subsequent application for the proposed Connection, with any potential transport related impacts being assessed and mitigated.</p> <p>In the absence of any further information, Transport Scotland has no further comment to make at this stage.</p> <p>They did however request a Transport Statement be submitted with any future application. All future consultations for Transport Scotland regarding this scheme etc. should be sent to TS Development Management: <a href="mailto:development_management@transport.gov.scot">development_management@transport.gov.scot</a></p> <p>Dores and Essich Community Council would not support Route A as it is felt this is most likely affect properties along the route. Route B is preferred, subject to further assessment. Impact on traffic and road safety will be a key issue for Dores and Essich Community Council. There is also view within the community that the road safety improvements that were agreed when the original substation was consented, in particular on the Essich Road, have never been fully implemented. This should therefore be reviewed in the development of this project.</p> <p>It was also noted at the public exhibition event that Dores and Essich Community Council would welcome a local presentation of the next iteration of the scheme design so that the broader community may have the opportunity to comment.</p> <p>A feedback form noted concern on the potential impact to access for walkers e.g. South Loch Ness Trail as well as road access for local and tourists.</p>	<p>A Transport Statement will be submitted with any future application.</p> <p>A Transport Statement or similar will be produced to set out proposed traffic and transport details of the Proposed Development.</p> <p>SSEN Transmission will consult with Dores and Essich Community Council to organise a suitable opportunity to present the next iteration of the scheme design.</p> <p>Access and recreational resources including local walking paths and core paths, will be considered during the next stage of alignment and site selection.</p>

Topic	Comment received	SSEN Transmission Response
Cultural Heritage	<p>Historic Environment Scotland identified no significant concerns.</p> <p>However, Historic Environment Scotland highlighted that even though UGC is Permitted Development that this does not remove the need for other consents such as scheduled monument consent. Scheduled Monument Consent is required for any works that would demolish, destroy, damage, remove, repair, alter or add to a monument, or to carry out any flooding or tipping on a scheduled monument.</p> <p>West of Scotland Archaeology Service advised that they are the archaeological adviser (inter alia) to Argyll and Bute Council and does not include the Highland Council area.</p>	<p>SSEN Transmission note the need for Scheduled Monument Consent where appropriate.</p> <p>No further action required regarding consultation with West of Scotland Archaeology Service.</p> <p>SSEN Transmission will consult with The Highland Council (THC) archaeology service via THC planning team where appropriate.</p>
Telecommunications	<p>BT noted no concerns to route A or B or Knocknagael substation extension. However if route C is to be progressed, BT have asked to be re-consulted.</p>	<p>SSEN Transmission acknowledge that should the preferred option change to Route C, that SSEN Transmission would contact BT.</p>
Aviation	<p>Highland and Islands Airports noted that their calculations show that, none of the proposed options are anticipated to infringe the safeguarding criteria for Inverness Airport.</p> <p>Therefore, based on the information received for this proposal and options, Highlands and Islands Airports Limited has no objections to the proposal and has no preference on which option is chosen.</p>	<p>No further action required.</p>
Other Issues	<p>NATS Safeguarding noted that the proposed development has been examined from a technical safeguarding aspect and does not conflict with their safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.</p> <p>However, NATS Safeguarding did state that this response applies specifically to the consultation document and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. Their response does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains SSEN Transmission responsibility to ensure that all the appropriate consultees are properly consulted.</p> <p>If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any</p>	<p>SSEN Transmission acknowledge that should there be changes to the proposed information which become the basis of a revised, amended or further application for approval or design, that SSEN Transmission would contact NATS.</p>

Topic	Comment received	SSEN Transmission Response
	such changes prior to any planning permission or any consent being granted.	
	The Coal Authority reviewed the proposed route against their data held and can confirm that the preferred route does not fall within the defined coalfield. On this basis, they had no specific comments to make.	No further action required.

## 8. CONCLUSION

This Report on Consultation documents the consultation undertaken for the Proposed Development in April and May 2022. The programme of consultation was designed to engage with key stakeholders including statutory and non-statutory consultees, local communities, landowners, and individual residents to invite feedback on the rationale for and approach to, the selection of the preferred route and site.

This report describes the key feedback received and details the actions taken and to be taken by SSEN Transmission in response to the comments provided.

Route B and Option 1 and 3 have been selected on the basis that they provide a balance between environmental, technical and economic factors. These will therefore be taken forward to the alignment and next phase of site selection.

All comments and considerations to date will be taken forward into the alignment and next phase of site selection stage, and assessments carried out for all relevant environmental aspects. This process remains inclusive, seeking further consultation where appropriate.

## **APPENDIX A SCOTTISH WATER LIST OF PRECAUTIONS FOR ASSETS**

## Annex 1: Precautions to protect Scottish Water Assets during development activities

### General requirements

1. If you are aware the activity is taking place within a drinking water catchment the proposed timing of the works, including planned start and completion dates, should be submitted to Scottish Water 3 months in advance of any activities taking place on-site. This information should be submitted to **[protectdwsources@scottishwater.co.uk](mailto:protectdwsources@scottishwater.co.uk)**.
2. If a connection to the water or waste water network is required, a separate application must be made via the Scottish Water Development Operations Team Portal for permission to connect, this can be found at **[Scottishwater/portal](#)**. It is important to note that the granting of planning consent does not guarantee a connection to Scottish Water assets. The Development Operations Team can be contacted by telephone on **0800 389 0379** or via email at **[developmentoperations@scottishwater.co.uk](mailto:developmentoperations@scottishwater.co.uk)**
3. In the event of an incident occurring that could affect Scottish Water we should be notified without delay using the Customer Helpline number **0800 0778 778** and the local contact if known.

### Protecting Scottish Water assets

4. If an activity associated with any third party works is located within the vicinity of an existing Scottish Water asset, it is essential that these assets are protected from damage. To this end, the developer will be required to comply with Scottish Water's current process, guidance, standards and policies in relation to such matters.
5. Copies of Scottish Water's relevant record drawings can be obtained from the undernoted Asset Plan Providers. This is distinct from the right to seek access to and inspect apparatus plans at Scottish Waters area offices, for which no charge is applied.

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6. It should be noted that the site plans obtained via the Asset Plan providers are indicative and their accuracy cannot be relied upon.
7. It is recommended for EIA's, housing and mixed developments that the developer contacts the **Scottish Water Development Enablement Team via the Development Services portal at <https://swastroprodweb.azurewebsites.net/home/default>** for further advice if assets are shown to be located in the vicinity of the proposed development, and where the exact location and the nature of the infrastructure shown could be a key consideration for the proposed development. An appropriate site investigation may be required to confirm the actual position of assets in the ground. Scottish Water will not be liable for any loss, damage or costs caused by relying upon plans or from carrying out any such site investigation.
8. Proposals for Forestry, Hydro Projects, Mining/Quarries, Peatland Restoration and Utility Projects should be sent to the HAUC Diversions Team via **the Development Services portal at <https://swastroprodweb.azurewebsites.net/home/default>** for further advice if assets are shown to be located in the vicinity of the proposed development, and where the exact location and the nature of the infrastructure shown could be a key consideration for the proposed development. An appropriate site investigation may be required to confirm the actual position of assets in the ground. Prior to any activity commencing, all known Scottish Water assets should be identified, located and marked-out. Please note that Scottish Water records are indicative only and it is your responsibility to accurately locate the position and depth of these pipes on site before preparing and submitting your plans. No intrusive site investigation works (e.g. trial holes) should be undertaken without written permission from Scottish Water.

9. Scottish Water requires Risk Assessment Method Statements (RAMS) and Safe Systems of Work (SSoW) to be prepared and submitted in advance to Scottish Water for formal review and acceptance. These documents shall consider and outline in detail how existing Scottish Water assets are to be protected and/or managed for the duration of any construction works and during operation of the development if relevant. These documents must be submitted to Scottish Water for formal prior written acceptance.
10. The developer shall obtain written acceptance from Scottish Water where any site activities are intended to take place in the vicinity of Scottish Water's assets. The relevant team can advise on any potential risk mitigation measures that may be required.
11. Scottish Water and its representatives shall be allowed access to Scottish Water assets at all times for inspection, maintenance and repair. This will also ensure that the Scottish Water assets are protected and that any Scottish Water requirements are being observed.
12. Any obstruction or hindrance of access to Scottish Water assets should be avoided. The prompt and efficient use and manipulation of valves, hydrants, meters or other apparatus is required at all times. There should also be no interference with the free discharge from water main scours or sewer overflows.
13. In the event of an incident occurring that could affect Scottish Water, including any damage to assets, Scottish Water should be notified without delay, using the Customer Helpline number **0800 0778 778**, and the local contact if known. Scottish Water apparatus should not be interfered with or operated by anyone other than Scottish Water personnel.
14. Minimum Distances of Sewers/Water Mains from Buildings/Structures/other Obstructions – There are two critical issues relating to how close you can build to water mains and sewers.
  1. Scottish Water has a legal right of access in order to maintain and repair assets and there are minimum distances required in order to facilitate future SW access to water mains and sewers. No buildings, structures or any other obstructions that will restrict our access or put at risk the integrity of the assets is permitted within this distance.
  2. For pressurised pipes there is a recommended distance to be used in order to protect adjacent buildings and structures should the asset burst. This is the recommended distance to minimise the risk of damage to adjacent properties and structures in the event of a water main failure. It is suggested that this distance may include garden areas but should not include inhabited structures.

The details of these requirements should be confirmed with Scottish Water as an early part of the design process.

15. Stationary plant, equipment, scaffolding, construction or excavated material, etc. should not be placed over, or close to, any Scottish Water assets without the prior written consent of Scottish Water which may be withheld depending on circumstances on-site.
16. Special care should be taken to avoid the burying of Scottish Water assets or the obstruction of sewers or manholes with fill or other material. Arrangements for altering the level of any chambers should be agreed in advance with Scottish Water and these should be constructed in accordance with Scottish Water requirements. The cost of any work to Scottish Water assets will be met by the project developer.
17. Excavation works (e.g. of wind turbine foundations) should not be carried out in the proximity of a water or waste water main without due notice having been given to Scottish Water and prior written acceptance obtained. The developer will comply fully with any Scottish Water specific site requirements.
18. Any tree planting associated with the development (e.g. compensatory planting or screening etc.) should be undertaken in line with Water for Scotland 4<sup>th</sup> Edition 2018 and Sewers for Scotland 4<sup>th</sup> Edition 2018 to ensure that Scottish Water's assets are not put at risk by future growth of tree roots.
19. Vibration in close proximity to Scottish Water pipelines or ancillary apparatus should be managed in accordance with British Standard 5228-1:2009 (Code of practice for noise and vibration control on construction and open sites). The predicted levels of vibration should be agreed in advance with Scottish Water as part of the risk assessment and method statement and agreed vibration monitoring arrangements will be required.
20. The developer will consider the possibility of increased loading on Scottish Water apparatus and measures will be taken to eliminate or mitigate increased loading on assets. Care should be taken to identify the exact location (line and level) of any assets, which may be crossed by vehicles on the access route to the site and crossing points will be engineered to the requirements of Scottish Water. Any pipe crossing proposals are subject to prior written acceptance by Scottish Water.
21. Scottish Water will not accept liability for any costs incurred in fulfilling any of the above requirements during the development planning, construction or operational phases, either by the developer, the developer's associates, contractors or any other person or organisation involved in the project.
22. If the developer damages any Scottish Water asset they will be held liable for any costs resulting from this.

SW List of Precautions for Assets EdC

23. Scottish Water may require costs associated with the development to be reimbursed by the developer or the developer's agents.

## **APPENDIX B SCOTTISH WATER LIST OF PRECAUTIONS FOR DRINKING WATER AND ASSETS GENERAL**

## Annex 1: Precautions to protect drinking water and Scottish Water assets during development activities

### General requirements

1. If you are aware the activity is taking place within a drinking water catchment the proposed timing of the works, including planned start and completion dates, should be submitted to Scottish Water 3 months in advance of any activities taking place on-site. This information should be submitted to [protectdwsources@scottishwater.co.uk](mailto:protectdwsources@scottishwater.co.uk).
2. If a connection to the water or waste water network is required, a separate application must be made via the Scottish Water Development Operations Team Portal for permission to connect, this can be found at [Scottishwater/portal](#). It is important to note that the granting of planning consent does not guarantee a connection to Scottish Water assets. The Development Operations Team can be contacted by telephone on **0800 389 0379** or via email at [developmentoperations@scottishwater.co.uk](mailto:developmentoperations@scottishwater.co.uk).
3. In the event of an incident occurring that could affect Scottish Water we should be notified without delay using the Customer Helpline number **0800 0778 778** and the local contact if known.

### Protecting drinking water quality

#### Regulatory requirements

4. Scottish Water is required to ensure that any activity within a drinking water catchment does not affect the ability of Scottish Water to meet its regulatory requirements.
5. Water Treatment Works are designed to treat the specific parameters of the raw water source they receive (i.e. the specific chemical, biological and other characteristics of natural, untreated water). If the characteristics of the raw water change or deteriorate, it can affect the ability of the works to supply drinking water to customers at the required standards.
6. The regulations relating to the quality of drinking water supplied by Scottish Water are the Public Water Supplies (Scotland) Regulations 2014 as amended. Quality Standards are derived from the European Drinking Water Directive 98/83/EC.
7. Drinking water catchments feed Scottish Water abstractions which supply water to water treatment works. Under Article 7 of the Water Framework Directive, waters used for the abstraction of drinking water are designated as Drinking Water Protected Areas (DWPA). The objective of the Water Framework Directive is to ensure that no activity results in the deterioration of waters within the DWPA. If an activity falls within a DWPA or drinking water catchment, it is essential that water quality and quantity are protected

#### Specific precautions for drinking water protection

8. A detailed, site specific Construction Method Statement including e.g. Construction Environmental Management Plan, Risk Assessment Method Statement, Pollution Prevention and Incident Plan and Contingency Plan must be submitted to Scottish Water at least 3 months prior to the works commencing. This should be agreed with Scottish Water prior to any operations taking place. Any other associated documents (e.g. Drainage Plan, Peat Management Plan etc.) should also be submitted and agreed with Scottish Water at least 3 months prior to works commencing. In the first instance, this information should be supplied to [protectdwsources@scottishwater.co.uk](mailto:protectdwsources@scottishwater.co.uk).
9. If helicopters are being used to transport equipment, machinery or infrastructure you must detail this within your documentation as detailed above. We would request that no refuelling takes place within the catchment where possible. If not possible, please provide as large a buffer as you can from the watercourse and certainly no less than the 50m, locate equipment on a level area sloping away from the watercourse and have spill kits available. Flying directly over the source should be avoided, where possible.
10. Where possible, infrastructure and activities should be located outside of the drinking water catchment. If this can be demonstrated to be impracticable then all infrastructure and activities should be located 100m from any watercourse where possible, and a minimum of 50m, where 100m can be demonstrated to be undeliverable.
11. Any potential effect on the hydrology of the area resulting from the construction and operation of the proposed development should be assessed and the findings presented in the Environmental Statement or environmental appraisal accompanying the planning application. This should include consideration of natural drainage patterns, base flows/volume, retention/run-off rates and potential changes to water quantity. Any required mitigation measures and proposed monitoring should also be detailed in the Environmental Statement or environmental appraisal accompanying the planning application.

## SW List of Precautions for Drinking Water and Assets – General EdD

12. When constructing roads, drainage ditches and trenches, drainage should not be directed into adjacent catchments but retained within the existing catchment.
13. Restoration or reseeded of access routes should be considered as routes can become degraded as work progresses.
14. Bog Mats or Ground Guards are recommended for use as ground protection solutions for creating long term temporary access roads and trackways onto sites, limiting the impact on the environment as they limit surface degradation.
15. Any potential pollution risk which could affect water quality should be considered and mitigation measures implemented to prevent deterioration in water quality and pollution incidents. This includes sediment run-off, soil or peat erosion, management of chemicals, fuels and oils, etc. (see also point 20 below). This should be considered for operations at all stages of development including pre- and post-construction.
16. Mitigation measures to prevent pollution to watercourses should be outlined in the Environmental Statement or environmental appraisal accompanying the planning application, and adopted in the Construction Method Statement/Construction Environmental Management Plan prior to work starting onsite. Any mitigation measures implemented should be checked regularly, maintained and improved to prevent deterioration in water quality and pollution incidents.
17. Sustainable drainage (SUDs) options should be considered, such as settlement ponds and designated filtration areas.
18. Watercourses that feed into any watercourses or reservoirs that Scottish Water abstracts from should be considered when developing new road or access infrastructure. Any crossing of these watercourses should be kept to a minimum. Pollution prevention measures should be put in place at each crossing point and silt traps, or equivalent, should be installed at regular intervals to minimise the risk from pollution.
19. Once constructed, site roads and access routes should be regularly maintained to ensure minimal erosion, and hence run-off and pollution, from the road surface. Avoid using material resulting in metallic, sulphide-rich or strongly acidic polluted water run-off, ideally using inert materials with low erodibility
20. No refuelling or storage of fuel or hazardous materials should take place within the drinking water catchment area. If this can be demonstrated to be impracticable, then the appropriate Pollution Prevention Guidelines (PPGs) or updated Guidance for Pollution Prevention (GPPs) should be followed. This includes, GPP 2: Above ground oil storage tanks, GPP 5 Works and maintenance in or near water, PPG 6: Working and Construction and Demolition Sites, GPP 8: Safe storage and disposal of used oils, GPP 21: Pollution incident response planning and PPG 22: Incident response – dealing with spills. Rather than 10m buffers from watercourses, we would recommend 50m buffers are applied to watercourses and 50m applied to spring, well or borehole. Oil storage should be in accordance with The Water Environment (Oil Storage) Regulations (Scotland) 2006. There should be dedicated oil storage areas created. Spill kits should be located within all vehicles, plant and high risk areas, as well as the consideration and use of nappies and booms.
21. Waste storage, concrete preparation and all washout areas should not be within the drinking water catchment area. If this can be demonstrated to be impracticable then this should be in dedicated areas 50m from a watercourse and designed to be contained and to prevent escape of materials/run-off to the environment. Any waste must be removed safely from site for the required treatment and disposal.
22. Welfare/waste water facilities should preferably be located outside the drinking water catchment. If not practicable, then portable toilets should be used and waste disposed of off-site. Alternatively secondary treatment and soakaways should be used and, if required, a sampling chamber installed and sampling programme agreed. The proposed method of managing welfare and waste water facilities should be detailed in the Environmental Statement or environmental appraisal accompanying the planning application. If sampling is required, Scottish Water should be contacted via **PlanningConsultations@scottishwater.co.uk** in the first instance.
23. Any proposed abstractions for activities such as welfare facilities or cement batching plants should be detailed in the Environmental Statement or environmental appraisal accompanying the planning application.
24. Induction training should be given to all personnel on-site and should include Scottish Water site sensitivities in relation to drinking water catchments and assets (see below), as well as spill response as outlined in PPG 22: Dealing with spills.
25. Construction and Environmental Management Plans, Pollution Prevention and Incident Plans, Risk Assessment Method Statements and Contingency Plans and other associated documents should include the Scottish Water Customer Helpline Number **0800 0778 778** and the local contact details.

### **Protecting drinking water in peatland areas**

26. When peat is present within the proposed area of activity the Environmental Statement or environmental appraisal accompanying the planning application should include an assessment on the potential release of colour and dissolved organic carbon quality as a result of changes to hydrology and/or physical disturbance. This should cover the construction and post construction phases.
27. Excavations and ground disturbance in areas of deep peat should be avoided. Deep peat is considered to be peat greater than 0.5m deep.
28. The natural hydrology within peat should be maintained and/or restored. Any necessary measures to maintain natural drainage of peat and sub-surface hydrology, such as tailored drain spacing on access tracks, should be implemented as part of the design of the development.
29. Scottish Water requests that, where possible, access tracks in the drinking water catchment are constructed as floating tracks with adequate provision for maintaining existing drainage patterns.
30. Exposed soils and peat can release sediment, colour and dissolved organic carbon. The use of geotextiles, turf replacement and/or reseeded, should be undertaken as soon as possible.
31. Restoration of any degraded peat should be considered for areas within the drinking water catchment.
32. Turves should be carefully removed and stored vegetative side up so they can be placed back over any excavated soils to ensure the soils surface stabilises and recovers as quickly as possible

### **Protecting drinking water due to forestry activity**

33. An assessment of any forestry activity, including felling, planting or other activities, likely to affect the drinking water catchment should be included in the Environmental Statement or environmental appraisal accompanying the planning application. Any specific mitigation measures should be identified and incorporated into the Construction Environmental Management Plan for the site, prior to any work commencing on site.
34. The Environmental Statement or environmental appraisal accompanying the planning application should include details on the harvesting/clearance process for any felling/woodland removal. The least disturbing method/s should be selected where possible.
35. Any historic drains and ditches within the site boundary that discharge directly to a watercourse in the drinking water catchment, these should be blocked and slowly discharged to a buffer area in line with current Forestry and Water Scotland Know the Rules booklet. Where possible, this should be undertaken in advance of any work being carried out on site, to provide protection for watercourses during site activities.

### **Monitoring requirements to protect drinking water quality**

36. Depending on the vulnerability of the public water supply, Scottish Water may request that a water sampling programme is to be undertaken and for the sampling parameters to be agreed with Scottish Water. This should assess the baseline water quality for a minimum of one year prior to any activities commencing on-site where possible, including ground investigations and any other activities, to allow an accurate understanding of baseline conditions at the site. Water sampling should continue during construction and then post-construction for a minimum of one year. Following completion of one year of sampling post-construction, this should be reviewed to determine whether this should continue for a further agreed period. The parameters, frequency and sampling locations will also need to be agreed with Scottish Water. This monitoring will establish if any decline in water quality can be attributed to the development. It may also be necessary to establish trigger levels to determine when any potential issues should be reported to Scottish Water.
37. During activities, a programme of daily visual inspection of the watercourses, flow conditions (i.e. high, medium, low, or no flow), prevailing weather and any other pertinent observations, will be required to be implemented. The results should be recorded and the information submitted to Scottish Water (i.e. in a monthly progress report). This should be undertaken when water quality samples are taken if sampling has been agreed as necessary. Proposals for monitoring should be submitted to **[protectdwsources@scottishwater.co.uk](mailto:protectdwsources@scottishwater.co.uk)**.
38. The appointed Contractor/Site Foreman or Ecological or Environmental Clerk of Works should have relevant knowledge and experience to provide advice and monitor compliance with measures for the protection of water quality in relation to abstractions for water supply.
39. Depending on the vulnerability of the public water supply, Scottish Water may request that a dedicated Environmental Manager be appointed and present on-site to assess and monitor any effects caused by the development.

### Guidance documents

40. Please ensure that appropriate Guidance Documents are followed:
- Floating Roads on Peat. Forestry Civil Engineering and SNH. (August 2010).
  - Constructed tracks in the Scottish Uplands, 2<sup>nd</sup> edition. SNH (June 2013).
  - The UK Forestry Standard – The Governments approach to Sustainable Forestry 2017
  - Forestry and Water Scotland (<http://www.confor.org.uk/resources/forestry-water-scotland/guidance-documents/>)
  - General Binding Rules under the Controlled Activities Regulations (see The Water Environment (Controlled Activities) Scotland Regulations 2011 (as amended) A Practical Guide, Version 8.3 February 2019
  - SEPA Pollution Prevention Guidance (<http://www.sepa.org.uk/regulations/water/guidance/>).
  - CREW Rural Sustainable Drainage Systems (visit <https://www.crew.ac.uk/sites/www.crew.ac.uk/files/sites/default/files/publication/Rural%20SuDS%20Design%20and%20Build%20Guide%20December%202016.pdf>)

### Protecting Scottish Water assets

41. If an activity associated with a development proposal is located within close proximity to Scottish Water assets, including water and waste water pipe infrastructure, treatment works and reservoirs etc., it is essential that these assets are protected from damage. To this end, the developer will be required to comply with Scottish Water's current process, guidance, standards and policies in relation to such matters.
42. Copies of Scottish Water's relevant record drawings can be obtained from the undernoted Asset Plan Providers. This is distinct from the right to seek access to and inspect apparatus plans at Scottish Waters area offices, for which no charge is applied.

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<http://www.cornerstoneprojects.co.uk/index.php/scottishwaterplans>

43. It should be noted that the site plans obtained via the Asset Plan providers are indicative and their accuracy cannot be relied upon.
44. It is recommended for EIA's, housing and mixed developments that the developer contacts the **Scottish Water Development Enablement Team via the Development Services portal at <https://swastroprodweb.azurewebsites.net/home/default>** for further advice if assets are shown to be located in the vicinity of the proposed development, and where the exact location and the nature of the infrastructure shown could be a key consideration for the proposed development. An appropriate site investigation may be required to confirm the actual position of assets in the ground. Scottish Water will not be liable for any loss, damage or costs caused by relying upon plans or from carrying out any such site investigation.
45. Proposals for Forestry, Hydro Projects, Mining/Quarries and Peatland Restoration should be sent to the HAUC Diversions Team via **the Development Services portal at <https://swastroprodweb.azurewebsites.net/home/default>** for further advice if assets are shown to be located in the vicinity of the proposed development, and where the exact location and the nature of the infrastructure shown could be a key consideration for the proposed development. An appropriate site investigation may be required to confirm the actual position of assets in the ground. Scottish Water will not be liable for any loss, damage or costs caused by relying upon plans or from carrying out any such site investigation.

## SW List of Precautions for Drinking Water and Assets – General EdD

46. Prior to any activity commencing, all known Scottish Water assets should be identified, located and marked-out.
47. Scottish Water expects Risk Assessment Method Statements (RAMS) and Safe Systems of Work (SSoW) to be prepared and submitted in advance to Scottish Water for formal review and acceptance. These documents shall consider and outline in detail how existing Scottish Water assets are to be protected and/or managed for the duration of any construction works and during operation of the development if relevant. These documents must be submitted to Scottish Water as detailed above, for formal written acceptance prior to any work commencing onsite.
48. The developer shall obtain written acceptance from Scottish Water where any site activities are intended to take place in the vicinity of Scottish Water's assets. The relevant team as detailed above, can advise on any potential risk mitigation measures that may be required.
49. Scottish Water and its representatives shall be allowed access to Scottish Water assets at all times for inspection, maintenance and repair. This will also ensure that the Scottish Water assets are protected and that any Scottish Water requirements are being observed.
50. Any obstruction or hindrance of access to Scottish Water assets should be avoided. The prompt and efficient use and manipulation of valves, hydrants, meters or other apparatus is required at all times. There should also be no interference with the free discharge from water main scours or sewer overflows.
51. In the event of an incident occurring that could affect Scottish Water, including any damage to assets, Scottish Water should be notified without delay, using the Customer Helpline number **0800 0778 778**, and the local contact if known. Scottish Water apparatus should not be interfered with or operated by anyone other than Scottish Water personnel.
52. The 'offset distance' is the distance between any Scottish Water asset and adjacent properties and structures. Scottish Water reserves the right to ask for an offset distance in accordance with its own current policy and standards and to suit specific circumstances. The details of this requirement should be confirmed with Scottish Water as an early part of the design process.
53. Stationary plant, equipment, scaffolding, construction or excavated material, etc. should not be placed over, or close to, any Scottish Water assets without the prior written consent of Scottish Water which may be withheld depending on circumstances on-site.
54. Special care should be taken to avoid the burying of Scottish Water assets or the obstruction of sewers or manholes with fill or other material. Arrangements for altering the level of any chambers should be agreed in advance with Scottish Water and these should be constructed in accordance with Scottish Water requirements. The cost of any work to Scottish Water assets will be met by the project developer.
55. Excavation works (e.g. of wind turbine foundations) should not be carried out in the proximity of a water or waste water main without due notice having been given to Scottish Water and prior written acceptance obtained. The developer will comply fully with any Scottish Water specific site requirements.
56. Any tree planting associated with the development (e.g. compensatory planting or screening etc.) should be undertaken in line with Water for Scotland 4<sup>th</sup> Edition 2019 to ensure that Scottish Water assets are not put at risk by future growth of tree roots.
57. Vibration in close proximity to Scottish Water pipelines or ancillary apparatus should be managed in accordance with British Standard 5228-1:2009 (Code of practice for noise and vibration control on construction and open sites). The predicted levels of vibration should be agreed in advance with Scottish Water as part of the Risk Assessment Method Statement (RAMS) and agreed vibration monitoring arrangements will be required.
58. The developer will consider the possibility of increased loading on Scottish Water apparatus and measures will be taken to eliminate or mitigate increased loading on assets. Care should be taken to identify any assets which may be crossed by vehicles on the access route to the site and crossing points will be engineered to the requirements of Scottish Water. Any pipe crossing proposals are subject to prior written acceptance by Scottish Water.
59. Scottish Water will not accept liability for any costs incurred in fulfilling any of the above requirements during the development planning, construction or operational phases, either by the developer, the developer's associates, and contractors or any other person or organisation involved in the project.
60. If the developer damages any Scottish Water asset they will be held liable for any costs resulting from this. Scottish Water may require costs associated with the development to be reimbursed by the developer or the developer's agents. Protecting Scottish Water assets
61. If an activity associated with any third party works is located within the vicinity of an existing Scottish Water asset, it is essential that these assets are protected from damage. To this end, the developer will be required to comply with Scottish Water's current process, guidance, standards and policies in relation to such matters.

62. Copies of Scottish Water's relevant record drawings can be obtained from the undernoted Asset Plan Providers. This is distinct from the right to seek access to and inspect apparatus plans at Scottish Waters area offices, for which no charge is applied.

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63. It should be noted that the site plans obtained via the Asset Plan providers are indicative and their accuracy cannot be relied upon.
64. It is recommended for EIA's, housing and mixed developments that the developer contacts the **Scottish Water Development Enablement Team via the Development Services portal at <https://swastroprodweb.azurewebsites.net/home/default>** for further advice if assets are shown to be located in the vicinity of the proposed development, and where the exact location and the nature of the infrastructure shown could be a key consideration for the proposed development. An appropriate site investigation may be required to confirm the actual position of assets in the ground. Scottish Water will not be liable for any loss, damage or costs caused by relying upon plans or from carrying out any such site investigation.
65. Proposals for Forestry, Hydro Projects, Mining/Quarries, Peatland Restoration and Utility Projects should be sent to the HAUC Diversions Team via the Development Services portal at <https://swastroprodweb.azurewebsites.net/home/default> for further advice if assets are shown to be located in the vicinity of the proposed development, and where the exact location and the nature of the infrastructure shown could be a key consideration for the proposed development. An appropriate site investigation may be required to confirm the actual position of assets in the ground. Prior to any activity commencing, all known Scottish Water assets should be identified, located and marked-out. Please note that Scottish Water records are indicative only and it is your responsibility to accurately locate the position and depth of these pipes on site before preparing and submitting your plans. No intrusive site investigation works (e.g. trial holes) should be undertaken without written permission from Scottish Water.
66. Scottish Water requires Risk Assessment Method Statements (RAMS) and Safe Systems of Work (SSoW) to be prepared and submitted in advance to Scottish Water for formal review and acceptance. These documents shall consider and outline in detail how existing Scottish Water assets are to be protected and/or managed for the duration of any construction works and during operation of the development if relevant. These documents must be submitted to Scottish Water for formal prior written acceptance.
67. The developer shall obtain written acceptance from Scottish Water where any site activities are intended to take place in the vicinity of Scottish Water's assets. The relevant team can advise on any potential risk mitigation measures that may be required.
68. Scottish Water and its representatives shall be allowed access to Scottish Water assets at all times for inspection, maintenance and repair. This will also ensure that the Scottish Water assets are protected and that any Scottish Water requirements are being observed.
69. Any obstruction or hindrance of access to Scottish Water assets should be avoided. The prompt and efficient use and manipulation of valves, hydrants, meters or other apparatus is required at all times. There should also be no interference with the free discharge from water main scours or sewer overflows.
70. In the event of an incident occurring that could affect Scottish Water, including any damage to assets, Scottish Water should be notified without delay, using the Customer Helpline number **0800 0778 778**, and the local contact if known. Scottish Water apparatus should not be interfered with or operated by anyone other than Scottish Water personnel.
71. Minimum Distances of Sewers/Water Mains from Buildings/Structures/other Obstructions – There are two critical issues relating to how close you can build to water mains and sewers.
1. Scottish Water has a legal right of access in order to maintain and repair assets and there are minimum distances required in order to facilitate future SW access to water mains and sewers. No

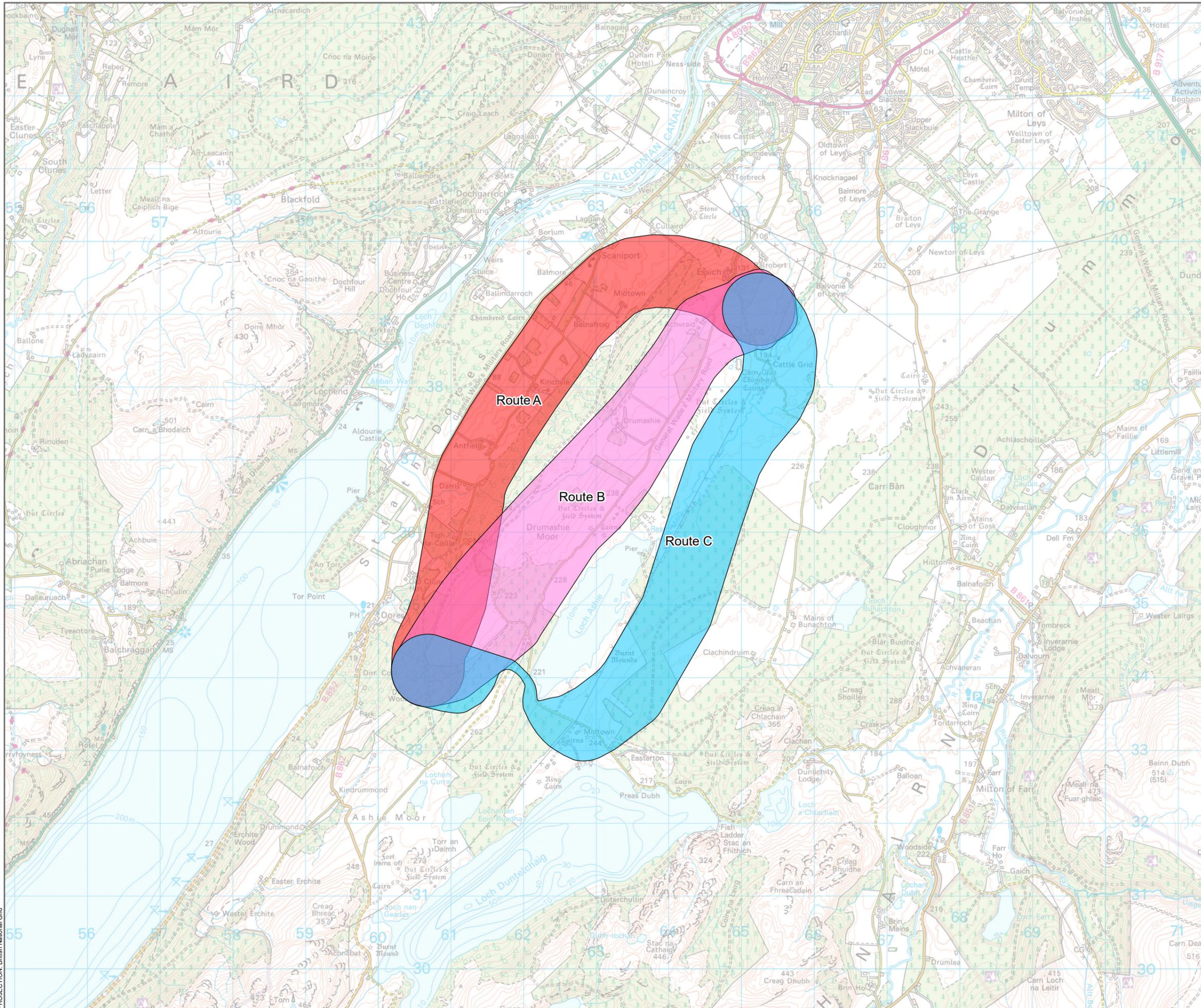
buildings, structures or any other obstructions that will restrict our access or put at risk the integrity of the assets is permitted within this distance.

2. For pressurised pipes there is a recommended distance to be used in order to protect adjacent buildings and structures should the asset burst. This is the recommended distance to minimise the risk of damage to adjacent properties and structures in the event of a water main failure. It is suggested that this distance may include garden areas but should not include inhabited structures.

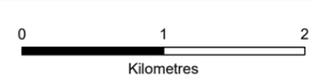
The details of these requirements should be confirmed with Scottish Water as an early part of the design process.

72. Stationary plant, equipment, scaffolding, construction or excavated material, etc. should not be placed over, or close to, any Scottish Water assets without the prior written consent of Scottish Water which may be withheld depending on circumstances on-site.
73. Special care should be taken to avoid the burying of Scottish Water assets or the obstruction of sewers or manholes with fill or other material. Arrangements for altering the level of any chambers should be agreed in advance with Scottish Water and these should be constructed in accordance with Scottish Water requirements. The cost of any work to Scottish Water assets will be met by the project developer.
74. Excavation works (e.g. of wind turbine foundations) should not be carried out in the proximity of a water or waste water main without due notice having been given to Scottish Water and prior written acceptance obtained. The developer will comply fully with any Scottish Water specific site requirements.
75. Any tree planting associated with the development (e.g. compensatory planting or screening etc.) should be undertaken in line with Water for Scotland 4<sup>th</sup> Edition 2018 and Sewers for Scotland 4<sup>th</sup> Edition 2018 to ensure that Scottish Water's assets are not put at risk by future growth of tree roots.
76. Vibration in close proximity to Scottish Water pipelines or ancillary apparatus should be managed in accordance with British Standard 5228-1:2009 (Code of practice for noise and vibration control on construction and open sites). The predicted levels of vibration should be agreed in advance with Scottish Water as part of the risk assessment and method statement and agreed vibration monitoring arrangements will be required.
77. The developer will consider the possibility of increased loading on Scottish Water apparatus and measures will be taken to eliminate or mitigate increased loading on assets. Care should be taken to identify the exact location (line and level) of any assets, which may be crossed by vehicles on the access route to the site and crossing points will be engineered to the requirements of Scottish Water. Any pipe crossing proposals are subject to prior written acceptance by Scottish Water.
78. Scottish Water will not accept liability for any costs incurred in fulfilling any of the above requirements during the development planning, construction or operational phases, either by the developer, the developer's associates, contractors or any other person or organisation involved in the project.
79. If the developer damages any Scottish Water asset they will be held liable for any costs resulting from this.
80. Scottish Water may require costs associated with the development to be reimbursed by the developer or the developer's agents.

## APPENDIX C FIGURES



- Proposed Route Option A
- Proposed Route Option B
- Proposed Route Option C

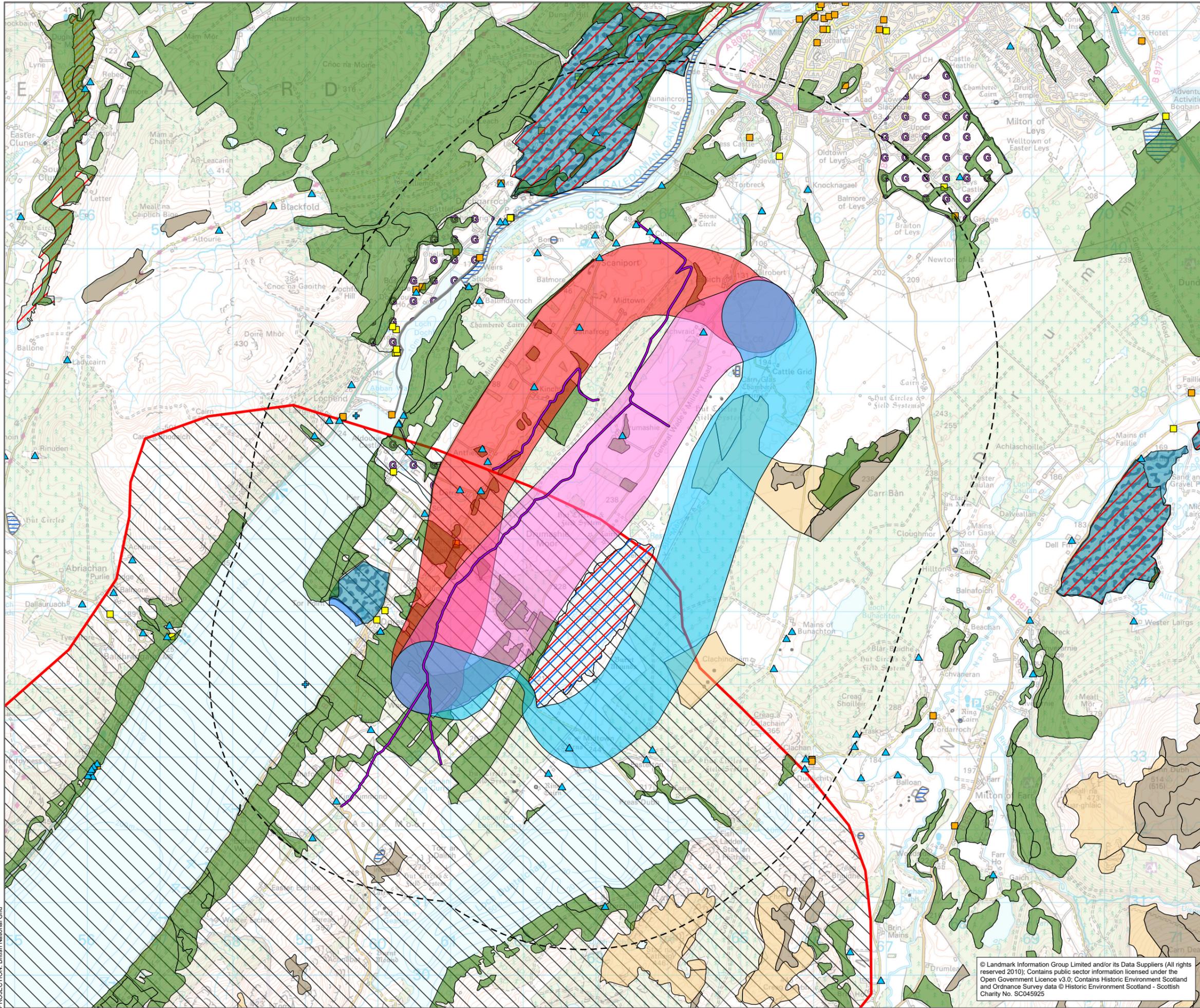


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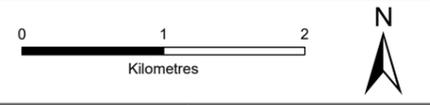
**Figure 1**  
**Red John Route Options**



PROJECTION: British National Grid



- ▲ Private Water Supply
- + National Record of the Historic Environment (Maritime)
- Category B Listed Building
- Category C Listed Building
- Core Path
- 2.5 km Buffer of Proposed Project Area
- Proposed Route Option A
- Proposed Route Option B
- Proposed Route Option C
- Bathing Water Site
- Scheduled Monument
- Ancient Woodland
- Geological Conservation Review Area
- Class 1 Carbon and Peatland
- Class 2 Carbon and Peatland
- Special Area of Conservation
- Special Protection Area
- Site of Special Scientific Interest
- Special Landscape Area
- Garden and/or Designed Landscape



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**Figure 2**  
**Combined Constraints - All Routes**



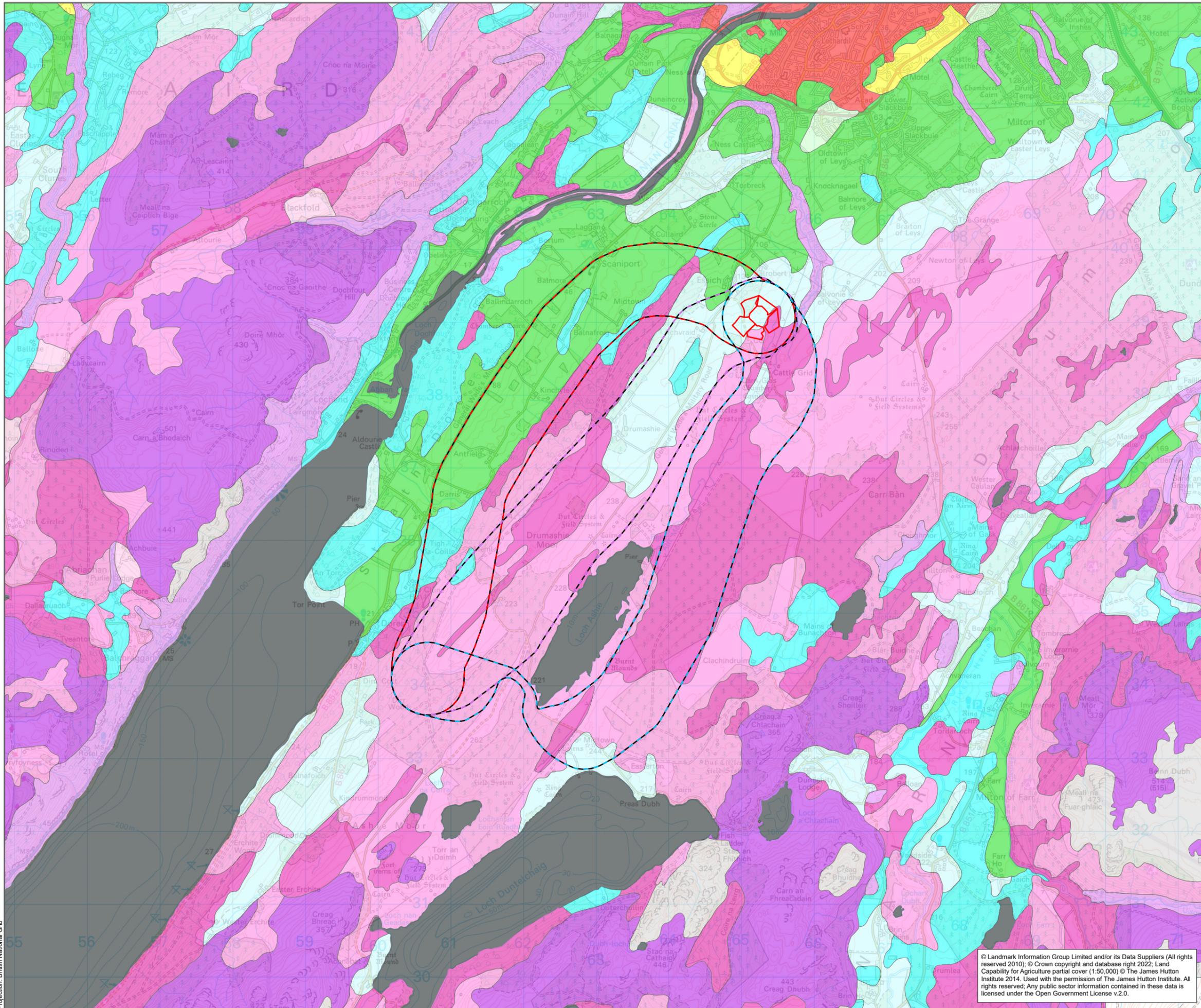
**ERM**



**Scottish & Southern**  
Electricity Networks  
TRANSMISSION

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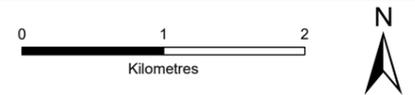
PROJECTION: British National Grid



- Proposed Substation Options
- Proposed Route Option A
- Proposed Route Option B
- Proposed Route Option C

**Land Capability for Agriculture (LCA):**

- 1
- 2
- 3.1
- 3.2
- 4.1
- 4.2
- 5.1
- 5.2
- 5.3
- 6.1
- 6.2
- 6.3
- 7
- Built-up area
- Inland water
- Uncoded islands



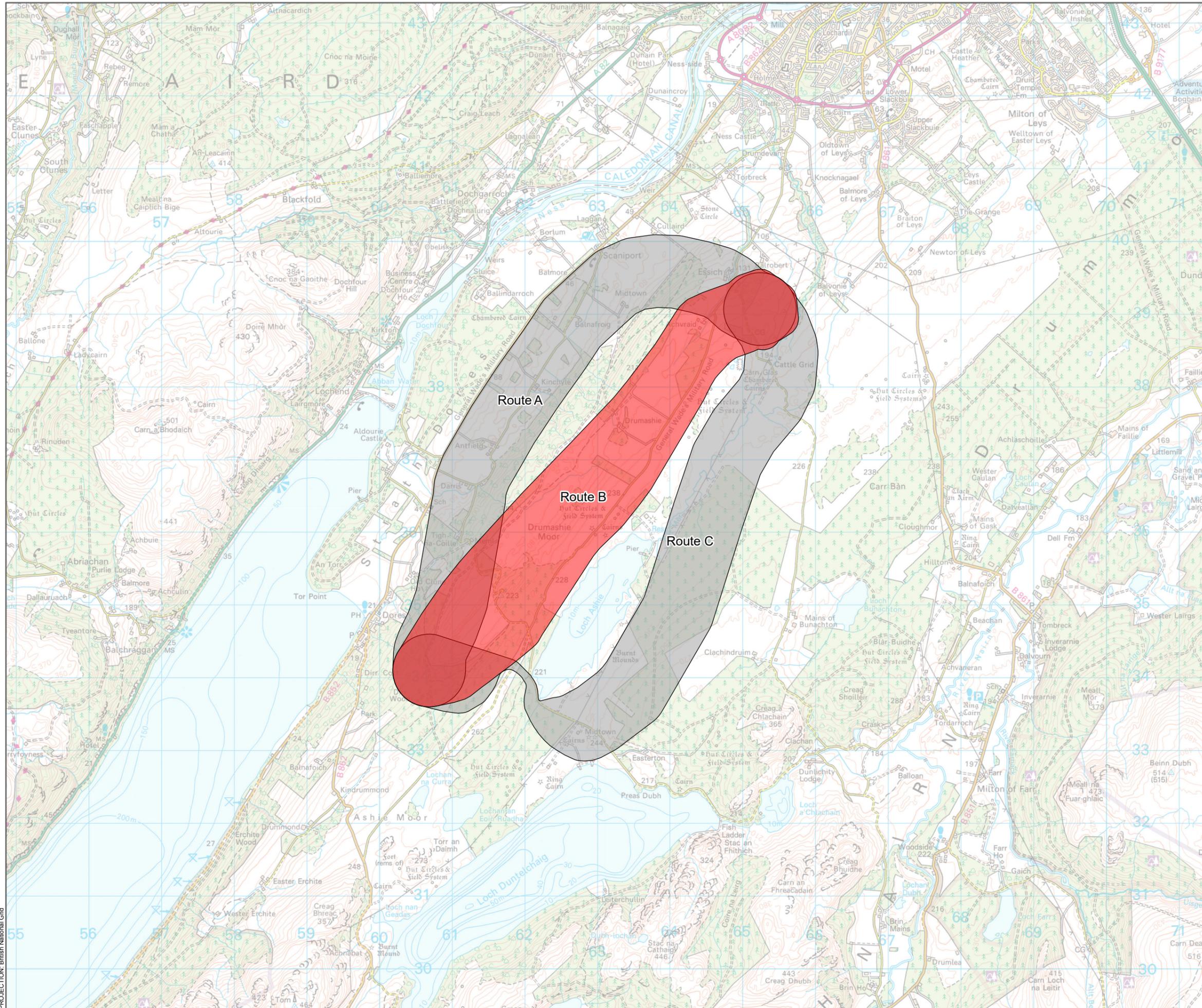
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VERSION: A01  
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 APPROVED: KG

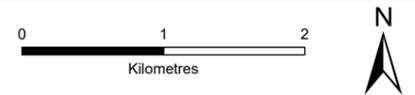
**Figure 3**  
**LT325 Red John: Land Capability**  
**for Agriculture (LCA)**

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- Preferred Route Option
- Alternative Route Option



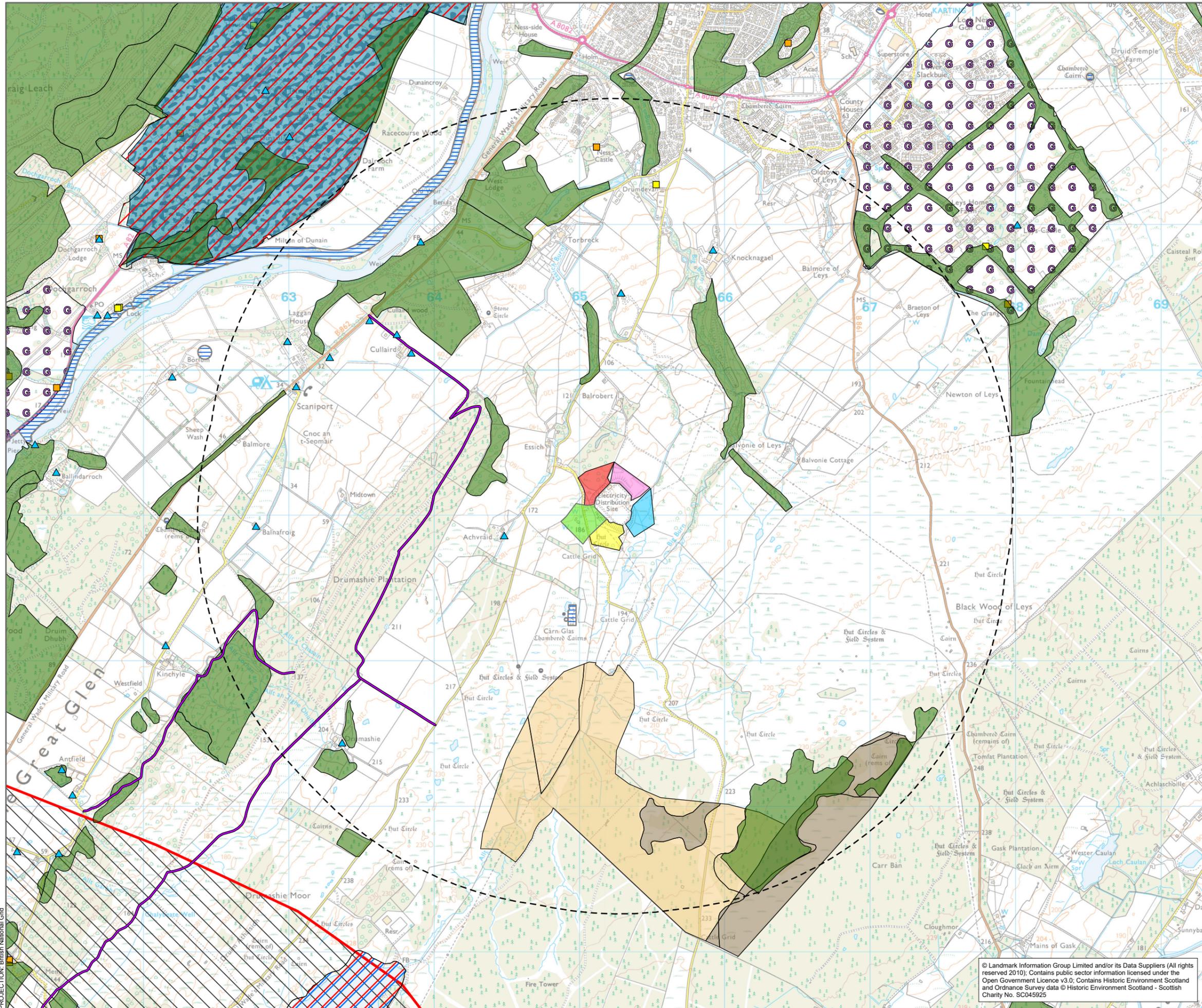
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**Figure 4**  
**Red John Overall Preferred Route**



PROJECTION: British National Grid





- ▲ Private Water Supply
- Category B Listed Building
- Category C Listed Building
- Core Path
- 2.5 km Buffer of Proposed Project Area
- Substation Option 1
- Substation Option 2
- Substation Option 3
- Substation Option 4
- Substation Option 5
- Scheduled Monument
- Ancient Woodland
- Geological Conservation Review Area
- Class 1 Carbon and Peatland
- Class 2 Carbon and Peatland
- Special Protection Area
- Site of Special Scientific Interest
- Special Landscape Area
- Garden and/or Designed Landscape



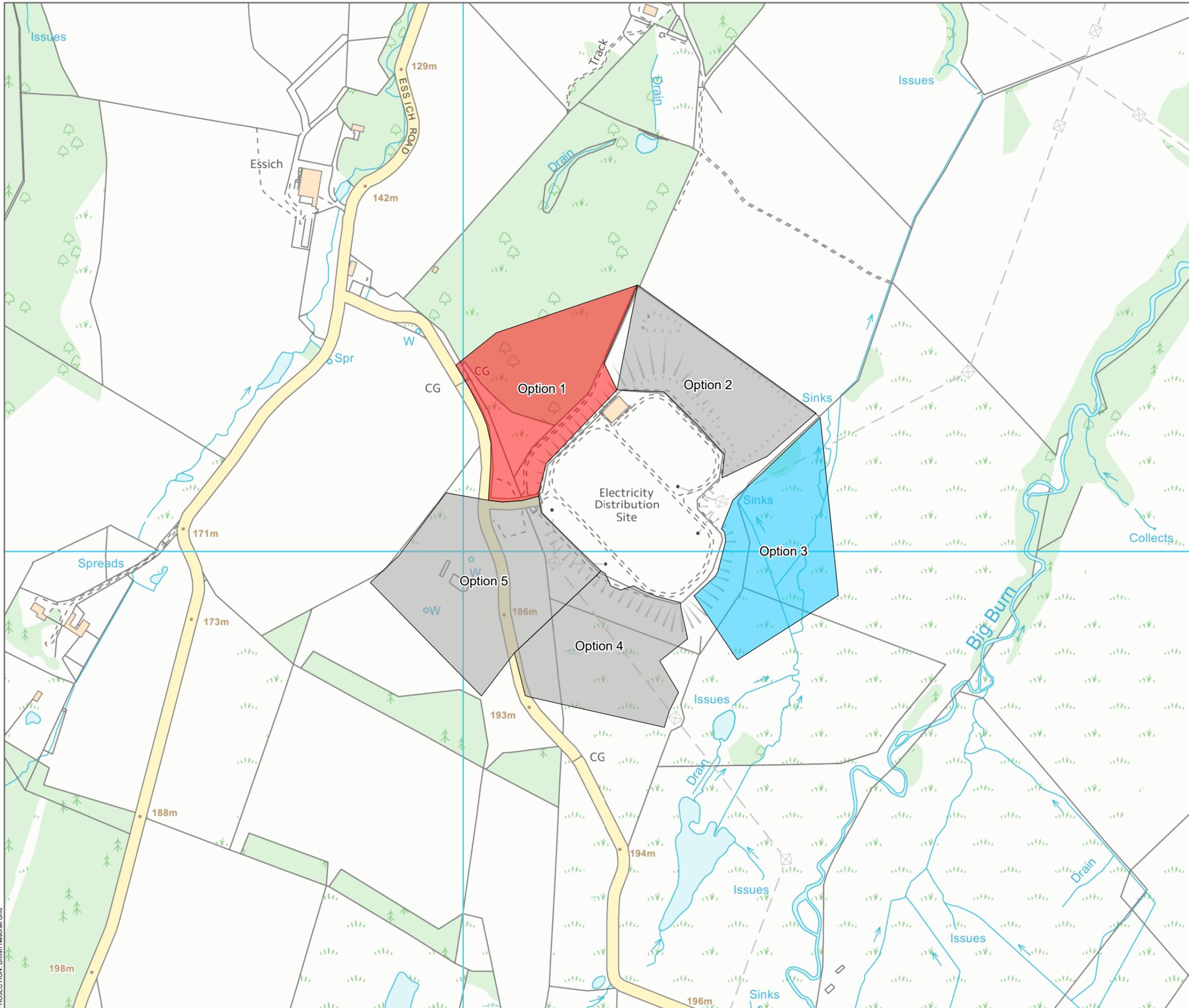
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**Figure 6**  
**Combined Constraints - Substation Options**



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PROJECTION: British National Grid



- Preferred Substation Option 1
- Preferred Substation Option 3
- Alternative Substation Option



SCALE: See Scale Bar	VERSION: A01
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PROJECT: 0631293	CHECKED: ES
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**Figure 7**  
**Red John Overall Preferred Substation Options**



PROJECTION: British National Grid