



The Scottish Government  
Energy Consents Unit

Scoping Opinion on behalf of Scottish Ministers under the Electricity Works  
(Environmental Impact Assessment) (Scotland) Regulations 2017

Lorg Wind Farm  
Wood Group Limited  
On behalf of RWE Renewables UK Developments Ltd

October 2021

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## 1. Introduction

**1.1** This scoping opinion is issued by the Scottish Government Energy Consents Unit on behalf of Scottish Ministers to Wood Group Limited, on behalf of RWE Renewables UK Developments Ltd (hereafter referred to as the “Applicant”), a company incorporated under the Companies Acts with company number 03758404 and having its registered office at Greenwood House Westwood Way, Westwood Business Park, Coventry, England, CV4 8PB (“the company”). This is in response to a request dated 28 May 2021 for a scoping opinion under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 in relation to the proposed Lorg Wind Farm (“the proposed development”). The request was accompanied by a scoping report.

**1.2** The proposed development site is located 12.3km south west of Sanquhar and 11km north east of Carsphairn straddling the boundary of Dumfries and Galloway and East Ayrshire.

The Development Site covers an area of approximately 1,243 hectares (ha) of mainly moorland with no tree cover, with the primary land use being grazing sheep. The ‘Lorg Trail’ footpath joins the Southern Upland Way (SUW) just north of the Development Site. The SUW continues to the east of the Development Site, before running along part of the eastern and southern site boundaries.

The Water of Ken runs through the Development Site from the north east to the south west, it continues to run southwards roughly parallel with the C class road between the Development Site boundary and the B729. The Development Site is divided into two areas by the steep-sided valley formed by the Water of Ken, with Lorg House located on the relatively flat land found north of the river and alongside the Lorg Burn.

In addition to the Water of Ken and the Lorg Burn, a number of other small burns cross the Development Site.

The nearest residential properties to the Development Site are at Polskeoch approximately 650m from the Development Site boundary and Upper Holm of Dalquhairn approximately 730m from the Development Site boundary. There is also a bothy located at Polskeoch, approximately 380m from the Development Site boundary.

The Development Site is owned by several landowners, with the historic and current land use primarily comprising the grazing of sheep. There is no forestry within the Development Site boundary.

In December 2015, a planning application for a 15 turbine wind farm, comprising a cluster of six turbines in the west of the Development Site and nine turbines in the east was submitted to Dumfries and Galloway Council and East Ayrshire Council under the Town and Country Planning (Scotland) Act 1997 (as amended). The Development Site straddles the administrative boundary between the council areas, with all the turbines being located in Dumfries and Galloway and approximately 2.1km of access track being located in East Ayrshire. This layout was granted consent by DGC and EAC in 2018.

A section 42 application was submitted to Dumfries and Galloway Council in June 2019. In September 2020 Dumfries and Galloway Council wrote to the applicant stating that as a result of decisions reached by the Court of Appeal for England and Wales (*Finney v Welsh Ministers & Ors*) and a Reporter appointed by the Scottish Ministers at Larbrax, Stranraer, for the increase in tip height of 8 wind turbines it would be unable to proceed with the application favourably without conflicting with these decisions. The Applicant therefore took the decision to withdraw the application.

Scottish Ministers are aware that the Applicant is currently exploring the possibility of using borrow pits on the site, the potential impact of any borrow pits should be considered in the EIA.

**1.3** The proposed Development will consist of up to 12 turbines with a likely maximum blade tip height of 200 metres and an associated on-site energy storage system.

**1.4** In addition to wind turbines, there will be ancillary infrastructure including:

- Access tracks connecting infrastructure elements;
- A small expansion of the existing vehicular access point from the public highway;
- Hard standing areas e.g. crane pads;
- Potential borrow pit(s);
- At least one anemometer mast;
- A potential battery storage area;
- Temporary working areas e.g. construction compound; and
- Control building and substation, and electrical cabling between this and the turbines.

**1.5** The company indicates the operational life of the proposed Development will be decommissioned within the operational life of the existing and consented developments.

**1.6** The proposed development is solely within the planning authority of Dumfries & Galloway Council

## **2. Consultation**

**2.1** Following the request for a scoping opinion, a list of consultees was agreed between Wood Group Limited, and the Energy Consents Unit. Scottish Ministers undertook a consultation on the scoping report and this commenced on 05 July 2021. The consultation closed on 16 September 2021.

Extensions to this deadline were granted to:

- Carsphairn Community Council
- Defence Infrastructure Organisation
- Dumfries & Galloway Council
- East Ayrshire Council

- Tynron Community Council

Scottish Ministers also requested responses from their internal advisors Transport Scotland and Scottish Forestry. A full list of consultees is set out at Annex A.

**2.2** The purpose of the consultation was to obtain scoping advice from each consultee on environmental matters within their remit. Responses from consultees and advisors should be read in full for detailed requirements and for comprehensive guidance, advice and, where appropriate, templates for preparation of the Environmental Impact Assessment (EIA) report.

**2.3** Unless stated to the contrary in this scoping opinion, Scottish Ministers expect the EIA report to include all matters raised in responses from the consultees and advisors.

**2.4** No responses were received from:

- Dumfries & Galloway Council;
- Carsphairn Community Council;
- Civil Aviation Authority – Airspace;
- Cree Valley Community Council;
- Dalry Community Council;
- Glencairn Community Council;
- Kirkconnel and Kelloholm Community Council;
- Mountaineering Scotland;
- Penpont Community Council;
- Scottish Wildlife Trust;
- Visit Scotland; and
- West of Scotland Archaeology Service.

Dumfries and Galloway Council have requested a further extension to the scoping consultation, ECU expect to receive the Council response by 5 November 2021.

This Scoping Opinion is issued without advice from Dumfries and Galloway Council. The Council's advice will be provided to the Applicant, as a separate annexe to the scoping opinion when this has been provided to the Scottish Ministers.

With regard to those other consultees who did not respond, it is assumed they have no comment to make on the scoping report, however each would be consulted again in the event that an application for section 36 consent is submitted subsequent to the Environmental Impact Assessment scoping opinion.

**2.5** The Scottish Ministers are satisfied that the requirements for consultation set out in Regulation 12(4) of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 have been met.

### 3. The Scoping Opinion

**3.1** This scoping opinion had been adopted following consultation with Dumfries and Galloway Council, within whose area the proposed development would be situated and East Ayrshire Council as the neighbouring Planning Authority. Scottish Environment Protection Agency (“SEPA”), NatureScot (Previously “SNH”) and Historic Environment Scotland (“HES”), were also consulted as statutory consultation bodies, as were other bodies, which Scottish Ministers considered likely to have an interest in the proposed development by reason of their specific environmental responsibilities or local and regional competencies.

**3.2** Scottish Ministers adopt this scoping opinion having taken into account the information provided by the applicant in its request dated 28 May 2021 in respect of specific characteristics of the proposed Development and responses received to the consultation undertaken. In providing this scoping opinion, the Scottish Ministers have had regard to current knowledge and methods of assessment; have taken into account the specific characteristics of the proposed Development, the specific characteristics of that type of development and the environmental features likely to be affected.

**3.3** A copy of this scoping opinion has been sent to Dumfries & Galloway Council for publication on their website. It has also been published on the Scottish Government energy consents website at [www.energyconsents.scot](http://www.energyconsents.scot).

**3.4** Scottish Ministers expect the EIA report, which will accompany the application for the proposed Development to consider in full all consultation responses attached in **Annex A**.

**3.5** Scottish Ministers are satisfied with the scope of the EIA set out in chapter 3 of the scoping report.

**3.6** In addition to the consultation responses, Ministers wish to provide comments with regards to the scope of the EIA report. The company should note and address each matter.

**3.7** The proposed development set out in the Scoping Report refers to wind turbines, and grid technologies including battery storage.

Any application submitted under the Electricity Act 1989 requires to clearly set out the generation station(s) that consent is being sought for. For each generating station details of the proposal require to include but not limited to:

- the scale of the development (dimensions of the wind turbines and battery storage)
- components required for each generating station
- minimum and maximum export capacity of megawatts and megawatt hours of electricity for battery storage

**3.8** Scottish Water provided information on whether there are any drinking water protected areas or Scottish Water assets on which the development could have any

significant effect. Scottish Ministers request that the company contacts Scottish Water (via [EIA@scottishwater.co.uk](mailto:EIA@scottishwater.co.uk)) and makes further enquires to confirm whether there any Scottish Water assets which may be affected by the development, and includes details in the EIA report of any relevant mitigation measures to be provided.

**3.9** Scottish Ministers request that the company investigates the presence of any private water supplies which may be impacted by the development. The EIA report should include details of any supplies identified by this investigation, and if any supplies are identified, the company should provide an assessment of the potential impacts, risks, and any mitigation which would be provided.

**3.10** Scottish Ministers request the company now review Marine Scotland's generic scoping guidelines for both onshore wind farm and overhead line development which outline how fish populations can be impacted during the construction, operation and decommissioning of a wind farm development and informs developers as to what should be considered, in relation to freshwater and diadromous fish and fisheries, during the EIA process. (<https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren>).

In addition to identifying the main watercourses and waterbodies within and downstream of the proposed development area, developers should identify and consider, at this early stage, any areas of Special Areas of Conservation where fish are a qualifying feature and proposed felling operations particularly in acid sensitive areas.

MSS also provide standing advice for onshore wind farms (which has been appended at **Annex A** which outlines what information, relating to freshwater and diadromous fish and fisheries, is expected in the EIA report. Use of the checklist, provided in Annex 1 of the standing advice, should ensure that the EIA report contains the required information; the absence of such information may necessitate requesting additional information which may delay the process.

**3.11** Scottish Ministers request the company now review SEPA's Standing advice and planning guidance which is available at <http://sepa.org.uk/environment/land/planning> and to contact them at the earliest opportunity to discuss Impacts on watercourses, lochs, groundwater, other water features and sensitive receptors, such as water supplies, need to be assessed. Measures to prevent erosion, sedimentation or discolouration will be required, along with monitoring proposals and contingency plans.

**3.12** Scottish Ministers consider that where there is a demonstrable requirement for peat landslide hazard risk assessment, the assessment should be clear understanding of whether the risks are acceptable and capable of being controlled by mitigation measures. The Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (Second Edition), published at <http://www.gov.scot/Publications/2017/04/8868>, should be followed in the preparation of the EIA report, which should contain such assessment and details of mitigation measures. Scottish Ministers are aware that the Proposed Development falls within Group 2 and Group 3 Peatlands and advise the applicant to take on board the advice from NatureScot contained within their response.

**3.13** The proposed viewpoints are given at Chapter 7, Table 7.2. At this stage we would request that any additional viewpoints, wireframes, ZTV and photomontages as requested by East Ayrshire Council and Historic Environment Scotland are considered in full.

It is recommended by the Scottish Ministers that the final list of viewpoints and visualisations should be agreed following discussion between the company, Dumfries and Galloway Council, East Ayrshire Council, and Historic Environment Scotland.

**3.14** The noise assessment should be carried out in line with relevant legislation and standards as detailed in chapter 6 of the scoping report. The noise assessment report should be formatted as per Table 6.1 of the IOA "A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise.

**3.15** As the maximum blade tip height of turbines exceeds 150m the LVIA as detailed in chapter 7 section 7.6.12 of the scoping report must include a robust Night Time Assessment with agreed viewpoints to consider the effects of aviation lighting and how the chosen lighting mitigates the effects. Scottish Ministers request that the company contacts Defence Infrastructure Organisation and Glasgow Prestwick Airport for further information on Aviation Safety lighting and Low Flying Aircraft. Scottish Ministers also request that the company has ongoing communication with NATS Safeguarding regarding safeguarding criteria.

**3.16** Scottish Ministers request that the company review the information provided in the response from Galloway Fisheries Trust and Nith District Salmon Fisheries Board regarding mitigation measures.

**3.17** Scottish Ministers are aware that further engagement is required between parties regarding the refinement of the design of the proposed development regarding, among other things, surveys, management plans, peat, finalisation of viewpoints, transport routes, cultural heritage, designated sites and cumulative assessments and they request that they are kept informed of relevant discussions.

#### **4. Mitigation Measures**

**4.1** The Scottish Ministers are required to make a reasoned conclusion on the significant effects of the proposed development on the environment as identified in the EIA. The mitigation measures suggested for any significant environmental impacts identified should be presented as a conclusion to each chapter. Applicants are also asked to provide a consolidated schedule, in tabular form, of all mitigation measures proposed in the environmental assessment, where that mitigation is relied upon in relation to reported conclusions of likelihood or significant of impacts.

#### **5. Conclusion**

**5.1** This scoping opinion is based on information contained in the applicant's written request for a scoping opinion and information available at the date of this scoping opinion.



The adoption of this scoping opinion by the Scottish Ministers does not preclude the Scottish Ministers from requiring of the applicant information in connection with an EIA report submitted in connection with any other application for section 36 consent for the proposed development.

**5.2** This scoping opinion will not prevent the Scottish Ministers from seeking additional information at application stage, for example to include cumulative impacts of additional developments which enter the planning process after the date of this opinion.

**5.3** Without prejudice to that generality, it is recommended that advice regarding the requirement for an additional scoping opinion be sought from Scottish Ministers in the event that no application has been submitted within 12 months of the date of this opinion.

**5.4** It is acknowledged that the environmental impact assessment process is iterative and should inform the final layout and design of proposed developments. Scottish Ministers note further engagement between relevant parties in relation to the refinement of the design of this proposed development will be required, and would request that they are kept informed of on-going discussions in relation to this.

**5.5** Applicants are encouraged to engage with officials at the Scottish Governments Energy Consents Unit at the pre-application stage and before proposals reach the design freeze.

**5.6** Applicants are reminded that there will be limited opportunity to materially vary the form and consent of the proposed development once an application is submitted.

**5.7** When finalising the EIA report, Applicants are asked to provide a summary in tabular form of where within the EIA report each of the specific matters raised in this scoping opinion has been addressed.

**5.8** It should be noted that to facilitate uploading to the Energy Consents portal, the EIA report and its associated documentation should be divided into appropriately named separate files of size no more than 10 megabytes (MB). In addition, a separate disc containing the EIA report and its associated documentation in electronic format will be required.

Carolanne Brown  
**Energy Consents Unit**  
**October 2021**

## ANNEX A

### Consultation

#### List of consultees

Dumfries & Galloway Council*	
East Ayrshire Council	A1-A12
British Horse Society	A13-A15
BT	A16-A17
Carsphairn Community Council*	
Civil Aviation Authority – Airspace*	
Cree Valley Community Council*	
Crown Estate Scotland	A18
Dalmellington Community Council	A19
Dalry Community Council*	
Defence Infrastructure Organisation	A20-A21
Fisheries Management Scotland	A22
Galloway and Southern Ayrshire Biosphere	A23
Galloway Fisheries Trust	A24-A25
Glasgow Airport	A26
Glasgow Prestwick Airport	A27-A28
Glencairn Community Council*	
Historic Environment Scotland	A29
John Muir Trust	A30
Joint Radio Company	A31-A32
Kirkconnel and Kelloholm Community Council*	
Mountaineering Scotland*	
NATS Safeguarding	A33-A43
NatureScot (SNH)	A44-A45
Nith DSFB	A47
Office for Nuclear Regulation	A48
Penpont Community Council*	
Royal Burgh of Sanquhar and District Community Council	A66
Royal Burgh of New Galloway and Kells Parish Community Council	A46
Royal Society for the Protection of Birds Scotland (RSPB)	A49
Scottish Environment Protection Agency (SEPA)	A50
Scottish Rights of Way and Access Society (ScotWays)	A51-A60
Scottish Water	A61-A64
Scottish Wild Land Group (SWLG)	A65
Scottish Wildlife Trust*	
Tynron Community Council	A69-A70
Visit Scotland*	
West of Scotland Archaeology Service*	

Officials from Transport Scotland and Marine Science Scotland areas of the Scottish Government provided internal advice at A67 to A68, and A71 to A79 respectively.

\*No consultee responses were received.

General Letter

**Governance**

**Chief Governance Officer, Solicitor to the Council  
and Council Monitoring Officer: David Mitchell**



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Our Ref: 21/0002/S36SCP

Date: 15th September 2021

Contact: Colin Lamond  
01563 553505

Scottish Government Energy Consents Unit  
4th Floor  
5 Atlantic Quay  
150 Broomielaw  
Glasgow  
G2 8LU

Dear Sir/Madam

**THE ELECTRICITY ACT 1989 SECTION 36  
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT)  
(SCOTLAND) REGULATIONS 2017  
REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36  
APPLICATION FOR LORG WIND FARM**

Site Address: Lorg Wind Farm, East Ayrshire.

I refer to your email dated 05 July 2021 requesting this Council's comments regarding the scoping report submitted by RWE Renewables UK Development Ltd.

The purpose of this response is to provide advice and guidance based on the Planning Authority's knowledge of the site and the surrounding area, and has included any comments received from the limited consultation undertaken by the Planning Authority. This enables the Applicant to consider the issues that are identified and address these in the EIA process and EIA Report associated with the Section 36 application.

The Planning Authority has not received consultation replies in relation to this Scoping request. You should be aware that this consultation list is selective as the onus, in this case, is on the Energy Consents Unit to undertake statutory and non-statutory consultations. A list of further consultees that would be useful to engage

The Opera House  
8 John Finnie Street  
Kilmarnock, KA1 1DD  
T E L: 0 1 5 6 3 5 7 6 7 9 0  
F A X: 0 1 5 6 3 5 5 4 5 9 2  
[www.east-ayrshire.gov.uk](http://www.east-ayrshire.gov.uk)

with as part of this process is included as Appendix 1. Please be aware that any lack of inclusion on this list of a particular party or organisation in no way indicates that the Planning Authority considers that consultation would not be beneficial.

The sections below highlight the comments of the Planning Authority on a number of matters.

A number of consultees have not responded to their consultation request at this time. If responses are subsequently received they will be forwarded to you for your consideration.

### **Non-technical summary**

This should be written in simple non-technical terms and should include a summary of the main issues of each chapter of the EIA Report, including the significant effects of the development and any mitigation measures to address these potential adverse impacts. A plan sufficient to identify the application site within the wider locality and a proposed site plan should be incorporated as a minimum.

### **Summary of Environmental Information**

A summary of the environmental information assessed throughout the EIA Report shall be provided.

### **List of qualifications and evidence of competency**

A list detailing the qualifications and evidence of relevant expertise / competency of each individual who has been involved in the production of the EIA Report, including those involved in the assessments which have been used to inform the various chapters of the EIA Report, shall be included.

### **Format of the EIA Report**

Two full paper copies including appendices should be provided to the Planning Authority. A number of electronic copies should also be provided including at least one copy that is split into manageable sized files for uploading by the applicant to the online viewing system of the Planning Authority. These files should be clearly named thus enabling easier public interpretation, consideration and navigation. An example would be splitting the EIA Report by chapter / topic. Any confidential annex should be clearly marked and kept separate from the remainder of the EIA Report but should not contain any non-confidential information or, if it does, this should be replicated within the EIA Report.

## **Consideration of alternatives**

Schedule 4, paragraph 2 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 requires that information on the reasonable alternatives (including design, turbine specifications, location, size and scale) considered and the main reasons for selecting the chosen option, including a comparison of the environmental effects be included within the EIA Report. Such consideration of alternatives should therefore be included within the EIA Report.

## **Baseline Information**

The Council has published a State of the Environment Report on its website: <https://www.east-ayrshire.gov.uk/PlanningAndTheEnvironment/Development-plans/State-of-the-Environment-Report.aspx>

This report collates up to date information on the environment within East Ayrshire and how it is changing. The information can be used to help inform applications. This may be of use when preparing your EIA Report.

## **EIA Assessment Methodology**

There should be a degree of flexibility adopted within the EIA Report when reporting the significance of the impacts as moderate effects can be considered as significant in terms of the EIA Regulations and would be based on the assessor's judgement.

## **Landscape and Visual**

The Planning Authority agrees that a 45km study area and 60km cumulative study area in this case are likely to be sufficient given the scale of the proposed turbines. Detailed study areas of 30km for both project-alone and cumulative landscape and visual impacts are also considered reasonable based on the ZTV submitted (Figure 7.1).

The Applicant is advised to keep the cumulative situation under review during the preparation of the EIA Report as this is an evolving situation, particularly in this part of the district which is under considerable pressure from wind energy development. The Applicant would be advised to ensure that information within the study area is also informed by up to date data both from East Ayrshire and neighbouring authorities; Dumfries and Galloway, South Ayrshire and South Lanarkshire

In addition to the cumulative effects with other wind farms, the Applicant should give consideration to potential effects alongside other tall structures such as electricity pylons and the south west Scotland transmission line. The site is within the East Ayrshire Sensitive Landscape Area and an assessment of impacts on the qualities of this area will need to be reported.

Whilst the Scoping Report notes there are residential properties within 2km of a turbine, with two properties within 650m-730m of the site boundary (Dumfries and Galloway). The applicant does propose a Residential Visual Amenity Assessment (RVAA) within 3km of the development. Given the scale of the turbines, the Planning Authority welcomes the inclusion of a RVAA.

Regarding the proposed viewpoint locations as set out in Appendix A Figure 7.1 & Table 7.2 of the Scoping Report, the Planning Authority would agree to these (although relevant neighbouring authorities may wish to clarify if viewpoints located in their areas are acceptable to them). Although the Planning Authority is in agreement with the viewpoints listed in Table 7.2, a further viewpoint is requested. An additional viewpoint from the Afton valley would be required. The viewpoint would be best located close to the Scottish Water Filter station where some turbines are likely to be visible.

In terms of the night time impacts from aviation lighting, the Planning Authority would agree with the proposed viewpoint locations listed in the Scoping Report but request the addition of viewpoint 13 (Lochside Hotel). For the avoidance of doubt and given the increased numbers of turbines consented and proposed of heights requiring visible aviation safety lighting, the Council would expect a cumulative assessment of night time lighting to form part of the EIA Report too.

The Planning Authority would note as an initial observation that the design does not appear to be cohesive with the two westerly turbines appearing as notable outliers to the remainder of the turbines assembled in the east.

### **Ornithology**

The Planning Authority notes that previous studies have indicated some presence of raptor species, Owl and Black Grouse. However, studies as late as 2020 have indicated that target species are relatively low in number. The main risk appear to be displacement and collision risk, with minimal loss of nesting and foraging habitat.

It is welcome that the applicant will undertake an up to date desk study and survey, and that data from consented sites will also be included. The Planning Authority has no particular comments beyond those above to make with regards to ornithological matters and would suggest the applicant ensures the requirements and requests of NatureScot and RSPB and any other relevant body with information and records of relevant ornithological interests be taken into account, in order to inform the assessment of these matters for reporting within the EIA Report.

### **Ecology and Nature Conservation**

The site adjoins a Local Nature Conservation Site (Afton Uplands) and impacts on

this designated site will need to be reported alongside any necessary mitigation to overcome impacts as necessary. Other than that, the Planning Authority has nothing particular to respond with on these matters and would suggest the applicant ensure the requirements and advice of NatureScot, RSPB and any relevant fisheries boards or the Ayrshire Rivers Trust, are taken into account to inform the scope of assessment of such matters for reporting within the EIA Report.

## **Noise**

The Council retains the services of a noise consultant to deal with wind farm noise matters and the Planning Authority would recommend that discussion is undertaken with the Council's noise consultant to agree the methodology for noise assessment. Whilst a cumulative noise assessment with other wind farms is appropriate, the applicant should also consider other noise generating developments within the vicinity and consider the impacts these may have in addition to the proposed development.

The applicant has stated that a full operational cumulative noise assessment will be undertaken up to a distance of 10km from the site. The applicant should ensure that the cumulative assessment be up to date at the point of assessment with regards to operational, consented and in planning wind developments at that time. The applicant has stated that the previous noise assessment concluded that the criteria for screening was exceeded at residential properties. A number of mitigation options are considered by the applicant including power rating reductions, quieter turbines and noise management. The applicant has also stated that the procurement of turbines will be influenced by the model type being capable of meeting noise limits. The scoping out of decommissioning noise from the EIA is acceptable to the Planning Authority. Construction methods are stated to comply with the relevant BS standards. Construction traffic may be controlled by planning condition.

The applicant has suggested that a significant proportion of aggregate/materials may be won on site, but there may be a need for borrow pits. However, the applicant has also modelled the scenario where 100% of materials will be imported. In the event that borrow pits are required, vibration may result from blasting to remove materials from borrow pits. In that case vibration should be assessed as part of the EIA Report.

## **Cultural Heritage and Archaeology**

The proposed extended study area of 10km for indirect effects on designated and nationally recognised assets is reasonable. The applicant has correctly referenced that there may be non-statutory assets within the site area, although potentially nationally significant non statutory assets such as Cairns are more than 5km from the site (assets in East Ayrshire are 8km distant from the site). The view of the Planning Authority is that the assessment of impacts on heritage assets in the EIA

Report should be proportionate. There are no nationally significant statutory assets within 5km of the site. The Planning Authority agrees with the applicant that at longer distances (5-10 km) between statutory asset and development site, the impacts are mostly limited to potential disruption to views to and from the asset. It should be noted that some assets such as cairns have astrological and funerary significance and views to and from the cairns are part of the cultural significance of the asset(s). This can extend to relatively significant distances at which views may be materially disrupted. The 500m study area for direct effects on statutory and non-statutory assets is in line with historic environment guidance and is acceptable to the Planning Authority.

The receptors chosen (listed in paragraph 8.5.10 of the Scoping Report) appear appropriate although there should be some flexibility to choose additional viewpoints if, during detailed assessment, it is considered that particular assets/locations would benefit from being selected as a viewpoint and appropriate visualisations provided.

Impacts on Gardens and Designed Landscapes should also include consideration of those not on the inventory. The West of Scotland Archaeology Service (WoSAS) stated in response to the 2015 application that the site is unlikely to host archaeological assets. However, the indicative site layout is a deviation from the consented site, and the finalised site could be a further departure from the indicative layout. Both WoSAS and HES (Historic Environment Scotland) should be consulted on any future application and any comments they provide to the scoping process should inform the subsequent EIA.

### **Ground Conditions and Hydrology**

The proposed site is in the water catchment area of two nearby reservoirs. In respect of the interests of East Ayrshire, one of these areas relates to tributaries leading to the Afton Reservoir (1.2km north of the development site). Two tributaries are within the site boundary and a number of smaller 'issues' are within 500m of the site boundary. The applicant should contact Scottish Water, as the reservoir is a Scottish Water asset and any potential pollution or disruption impacts should be discussed. Areas of potential surface water flooding are limited to a low risk area to the west, close to the site boundary (within EAC) and an area (minor in scale) at high risk to the very north fringe of the site boundary, where headwaters converge with the Afton reservoir. One section of watercourse (in confluence with Afton) is considered to be of ecological significance by SEPA. Regards GWDTE, seven viable locations were included in the assessment for the 2015 application. SEPA would be expected to be contacted by the applicant in respect of any subsequent application.

The applicant has stated that during the 2015 assessment the exact locations of some PWS (ie. co ordinates) were not supplied by EAC Environmental Health. Of those whose co ordinates were supplied, no PWS were present within the EAC boundary and within 4km of the proposed site. EAC Environmental Health Service



should be contacted to assist in the identification of any PWS in and around the site. It is important to ensure the identifiable locations are ascertained for the EIA Report.

The EIA Report should risk assess any PWS potentially affected by the proposed development, and in assessing the risk, should not only consider the source, its catchment and the receptor, but also identify / map out and consider the pathway from the source to the receptor. Only through identifying this pathway is it possible to gain a full understanding of any potential impacts that infrastructure/construction activity might have on any PWS in and around the site. Details of any mitigation and/or contingency measures that may be required should be detailed within the EIA Report.

Should the finalised proposal include the winning of material from on site borrow pits, the EIA Report should include information on the location, size and nature of these borrow pits, including details of the depth of the borrow pit floor and an indicative borrow pit final reinstated profile. The impact of such features (including dust, blasting and impacts on hydrology) should be appraised as part of the overall impact of the proposal. Information on the depth of excavations compared to the actual topography, the proposed restoration profile, proposed drainage and settlement traps, turf and overburden removal and storage for reinstatement should be included in the EIA Report.

The applicant has correctly identified that there is potential for disruption to water quality and subsequent impacts on the water environment supporting aquatic life. The Ayrshire Rivers Trust and the Nith District Salmon Fisheries Board should be contacted to discuss their expectations and requirements regarding the extent of hydrological assessment required to inform the assessment of hydrological impacts which also links to the potential ecological impacts on aquatic life.

The Planning Authority would rely on detailed comments on such matters from NatureScot and SEPA. These bodies would be able to advise on the appropriateness of the methodologies reported.

### **Traffic and Transport**

The Planning Authority would advise that any assessment of traffic impacts should be based on a worst case scenario which assumes 100% of construction materials such as stone requiring to be imported to site. The applicant has stated the default position is importation of materials, although a secondary option of on site winning of materials is also suggested. At this stage, the applicant is keeping both options open. The consequent effects importation would have on traffic volumes should be assessed. A worst case scenario should be presented in case any proposed borrow pits fails to provide the anticipated volume of stone for construction, to ensure a robust assessment of traffic impacts. Construction staff / LGV travel to site should also be considered. Early contact with the Ayrshire Roads Alliance (ARA) is advised.

The EIA Report should identify potential sources of materials. The scoping submission does state some preferred options (quarry sites) for sourcing of materials (if imported). If these sources are off-site consideration should be given to the impacts of those routes to site, including communities along those routes. Such assessment should also include cumulative impacts with other developments. As highlighted within SPP, borrow pits should only be permitted where there are significant environmental or economic benefits compared to obtaining material from local quarries. As such, should any borrow pits be proposed, appropriate environmental and/or supporting information should be submitted to justify the need for borrow pits. The Council's Minerals Local Development Plan Policy MIN SUP2 indicates the matters the Council would take into consideration, and supporting evidence Applicants should provide, in respect of borrow pits.

The Planning Authority would agree that operational traffic can be scoped out as this is likely to be limited and decommissioning traffic could also be scoped out provided it is clearly reported in the EIA Report that impacts associated with this period will be reappraised prior to any decommissioning taking place on site. It is also noted that decommissioning impacts are likely to be similar to those which would be assessed for the construction period.

### **Socio-economics, Tourism and Recreation**

The EIA Report should consider any strategies for long-term public access to the site for recreational uses during its operational lifetime, including any options for connections to be made with surrounding land and uses to maximise the public access benefits from a larger site than is currently consented. It is noted that there is an absence of established rights of way or core paths within the EAC part of the site, with the closest core path (C10 cycle path) 2km north. However, comprehensive and complete records of rights of way are difficult to source.

Management of public access to the site during the construction period should also be detailed. Any recreational or tourist receptors which may face significant impacts as a result of landscape and visual impacts should be considered. This could be addressed within an LVIA chapter or within the socio-economic chapter, providing consideration of such impacts has been taken into account and reported.

The EIA Report should also detail any proposed community benefits or shared ownership proposals. Whilst the Applicant seeks to scope socio-economic, tourism and recreation out of the EIA Report, it is still expected that any such matters be discussed and in particular, any economic / employment benefits be detailed.

### **Other Effects**

#### **Shadow Flicker**

The closest residential property is 1.2km distant. The Scoping Report advises that effects from shadow flicker are possible at distances of up to 10 rotor diameters and 130 degrees either side of north for each turbine. The applicant has stated that once the layout is finalised, if any properties meet the above criteria, an assessment of potential impacts will be undertaken. This is broadly acceptable to the Planning Authority, but the applicant should note that the effects of shadow flicker may occur out with these parameters as the 10 rotor diameters' distance is a guide and does not guarantee no effects will be experienced beyond that distance.

The Planning Authority does have experience of a turbine development within East Ayrshire which has caused shadow flicker at a property which is beyond a distance of ten rotor diameters. As such, if there are properties beyond a distance of ten rotor diameters but not too distant, consideration should be given as to the potential effects on such properties.

### **Existing Infrastructure, Telecommunications and Broadcast Services**

The Planning Authority agrees that consultation with the relevant bodies should be undertaken to inform the assessment of impacts. It is expected that details of any correspondence to confirm the relevant system operators are satisfied that there will be no impacts is included within the EIA Report, alongside plans showing any relevant infrastructure or buffer areas to confirm that all proposed infrastructure is beyond the area of influence of such features. It remains the case that appropriate conditions are likely to be needed to ensure that if there are any impacts attributable to the proposed development, that these are mitigated. No significant effects were assessed in the 2015 report (ES).

### **Aviation**

The scoping report considers it unlikely there will be significant impacts on aviation matters, subject to mitigation. The scoping report has suggested that consultation will take place with aviation stakeholders. If necessary, appropriate mitigation or avoidance will be applied. Previous assessment of aviation impacts (2015) did not raise any significant aviation concerns. However, this is an amended indicative layout. The Planning Authority will require a detailed assessment of aviation impacts to accompany any application to ensure any potential impacts are fully assessed and any appropriate mitigation detailed. It should be noted that some aviation stakeholders may have significantly changed their technical criteria in the assessment of radar and instrument landing procedures. The applicant should engage at the earliest opportunity with Glasgow Prestwick Airport (GPA). The published IFP's (landing procedures) for GPA now include both satellite and ground based assessments. Although the previous GPA position was one of no objection, this cannot be assumed especially in light of the additional safeguarding criteria now in place.

At turbine tip heights of 200m, the trigger for visible aviation lighting applies. Such

lighting is required at turbine heights of 150m and above as turbines at these heights are en route obstacles and their presence must be alerted to aircraft flying at night. It should be noted that night time visualisations should be included within the LVIA and RVA as necessary, in order for the Planning Authority to assess potential effects of visible aviation lighting.

### **Population and Human Health**

The Scoping Report suggests that issues around population and human health are addressed in relevant chapters including those related to landscape/visual, traffic, noise and socio-economics. The applicant has also suggested a summary table identifying the effect and the chapter it relates to. Provided the relevant chapters make it clear that public health has been addressed within where relevant, the Planning Authority would agree that a specific section addressing human health and safety would not be required. The Planning Authority welcomes any clarity or clearly identifiable evidence within the EIA Report that these matters have been taken into account.

### **Major Accidents and Disasters**

Where the applicant has assessed a potential risk, further detail will be offered within specific chapters in the EIA report. Most major risks are scoped out but landside, severe weather and flooding will be explained in further detail in the EIA Report. The Planning Authority is satisfied with this approach.

### **Climate Change**

The Planning Authority are satisfied that the effects of the proposed development on climate change are scoped into the EIA, accompanied by Carbon Calculation results.

### **Waste**

The Planning Authority consider that discussion should be made within the EIA Report of the potential sources of waste and how waste might be suitably dealt with although these matters might be able to be addressed in each relevant chapter instead of a specific section.

### **Forestry**

The applicant does not expect forestry to be felled to accommodate the proposed development. If this is the case then no forestry assessment is expected. However, if there is a change to the indicative layout which requires felling, then any subsequent requirement for compensatory planting should be reported and accompanied by relevant figures to demonstrate areas of loss and compensatory planting. This would include details of species composition of any compensatory planting. Scottish Forestry would be able to advise in more detail as to the

expectations of the forestry chapter or any relevant guidance should it be required. If the layout is as indicated, or close to the indicative layout, it would not be expected that felling would form part of the development.

### **Decommissioning and Restoration**

An assessment of the likely impacts of decommissioning of the proposed development on all of the environmental topics shall form part of the EIA Report. This will ensure a reasonable idea as to what those impacts may be and what possible mitigation would be required. The application should be accompanied by a decommissioning report which sets out a costed breakdown of the decommissioning, restoration and aftercare works likely on site, based on the observations made within the EIA Report regarding decommissioning. The decommissioning report will require to be reviewed by the Council's independent consultants to inform the expected financial guarantee quantum which the Council would seek to secure via a Section 75 legal agreement. The Applicant should advise what mechanism they intend to secure this, such as a bond. These matters would inform the Council's assessment of the application.

The removal of the development including access tracks (and any floating tracks) and ancillary infrastructure, as part of the decommissioning and restoration process is the preferred approach of this Council unless a better alternative (taking account of all relevant environmental, social and economic issues) can otherwise be demonstrated by the Applicant.

### **Planning Monitoring Officer**

The Council promotes the use of a Planning Monitoring Officer (PMO) on developments of this scale and type. The PMO is appointed by the Council to assist in the assessment of detailed environmental planning conditions and to monitor and report on the construction works. The Council asks that developers fund the cost of the PMO and that this is secured by a Section 75 legal agreement. The benefits of the PMO use include more robust discharge of planning conditions, communities having greater certainty that proper monitoring is taking place and the developer is following the commitments made. It provides an independent overview that can be relied upon during the construction phase and afterwards by the Council and the developer.

The use of the PMO need not necessarily be an integral part of the EIA Report, however, the Council's approach should be given consideration as part of the wider suite of monitoring and environmental best practice considered by the EIA Report.

### **Conclusion**

The Applicant is advised to ensure that all the requirements of the up to date regulations and guidance documentation is complied with in undertaking the EIA and subsequent compilation and submission of the EIA Report. The Applicant is

advised to contact the relevant consultees to seek their views/input into the various chapters to ensure all matters raised are adequately dealt with.

Yours faithfully

Colin Lamond  
**Planning Officer**

## **Appendix 1**

The planning authority encourage the following consultees to be engaged with prior to the submission of an application:

- SEPA (Scottish Environmental Protection Agency)
- NatureScot (Nature Scotland) **formerly SNH**
- HES (Historic Environment Scotland)
- EAC Regulatory Services (Environmental Health)
- ARA (Ayrshire Roads Alliance)
- Transport Scotland
- Scottish Water
- WSAS (West of Scotland Archaeological Service)
- MOD (Ministry of Defence)
- NATS (National Air Traffic Services)
- GPA (Glasgow Prestwick Airport)
- New Cumnock Community Council
- Dalmellington Community Council
- Royal Society for the Protection of Birds (RSPB)
- Ayrshire Rivers Trust
- Nith Valley Salmon Fisheries Board
- Forestry Commission
- Scottish Wildlife Trust

This is not an exhaustive list and the applicant is encouraged to consult as widely as possible.

REDACT  
REDACT

Energy Consents Unit  
Scottish Government  
5 Atlantic Quay 150  
Broomielaw  
Glasgow G2 8LU

By email to:

[Econsents\\_admin@gov.scot](mailto:Econsents_admin@gov.scot)  
[Carolanne.Brown@gov.scot](mailto:Carolanne.Brown@gov.scot)

19 July 2021

Dear Sir/Madam

**ELECTRICITY ACT 1989  
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)  
REGULATIONS 2017**

**REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR  
LORG WIND FARM**

I refer to the above planning application request for the proposed Lorg Wind Farm, in the planning authority area of Dumfries and Galloway Council, and East Ayrshire Council.

The British Horse Society (BHS) is always pleased to be consulted on transport, planning and development matters and where possible or necessary we are able to engage local riders to get a locally based response. Thank you very much for consulting with us, horses are important and good for people so their safety and capacity to access safe off road hacking is a key consideration in terms of their welfare and the wellbeing of their riders and those who look after them.

A project, like the one you are carrying out is an excellent opportunity to improve connections in a community and hopefully resolve any problems in terms of countryside access, transport and travel.

The BHS is here to help, so please do not consider this response the final word, we hope to work with you on an on-going basis to ensure horses and horse riders get as good a deal as they can out of any proposed improvements, so please do not hesitate to contact us in the future.

**The Importance of Off-Road Riding**

Scotland's equestrian industry is important with the horse being a major rural economic driver, recent joint research between SRUC and BHS showed:

Current trends in the sector point to a continued increase in horse numbers and riding activity in all geographical areas of Scotland and across a wide cross section of society. The expenditure on direct upkeep averages £3,105 per horse per annum.

This report also showed:

A concern for all riders, including tourists, is diminishing access to safe off-road riding. Most riding accidents happen on minor roads in the countryside. With increasing numbers of horses and riders requiring access to the countryside, more formal access to off-road riding will be a priority in areas considered of higher risk.

The full report can be accessed at:

[http://www.sruc.ac.uk/downloads/file/2391/2015\\_scoping\\_study\\_on\\_the\\_equine\\_industry\\_in\\_scotland](http://www.sruc.ac.uk/downloads/file/2391/2015_scoping_study_on_the_equine_industry_in_scotland)

Scotland has a duty to get horse riders off busy roads; few riders access busy roads by choice (and the horse has as much right to be on the public highway as cars, bikes and pedestrians) - but they often have no choice as that is the only way they can access their safe off road hacking.

I can also refer you to:

<http://www.rospa.com/road-safety/advice/horse-riders>

Equestrian road users are vulnerable - that means they are more likely to be involved in a road accident and also more likely to suffer the worst consequences.

Horses and their riders (as well as carriage drivers) are vulnerable on the road network. A collision between a horse and a vehicle can have life threatening consequences for the horse, rider and those in a vehicle. There is evidence to suggest that the number of road traffic collisions involving horses is underreported in casualty data.

Horse riding is more prevalent (particularly on roads) in certain parts of the country. Rural areas have larger numbers of horse riders, who make a significant contribution to the rural economy. Yet according to Road Safety Scotland 70% of road accidents happen on country roads.

(<http://dontriskit.info/country-roads/view-the-campaign>)

The BHS expects developers to work with representatives of the local horse riding community to understand their road safety and countryside access concerns and facilitate engagement with other partners and consider whether any road safety interventions should be introduced, where there are significant numbers of horse riders and/or road traffic collisions involving horses.

Under the Land Reform (Scotland) Act 2003, horse-riders and carriage drivers enjoy a right of access to most land in Scotland, provided that they behave responsibly. Land managers in turn are obliged to respect equestrian access rights and take proper account of the right of responsible access in managing their land. The Scottish Outdoor Access Code gives guidance on how the requirements to behave responsibly can be met. Please refer to:

[www.outdooraccess-scotland.com](http://www.outdooraccess-scotland.com)

This access legislation, which is over a decade old now gives horse riders the same rights of responsible access as walkers and cyclists. It is vital that any off road tracks or non-motorised user's tracks or paths are multi-use catering for all including horse riders and carriage drivers.

### **Active Travel and Suitable infrastructure**

Whilst the active travel movement does not consider equestrian travel to be a form of active travel there are many people for whom riding is an attractive mode of travel whether that be for travel purposes or leisure purposes, and the delivery of Active Travel should not discourage this, just as it should not discourage the use of micro-scooters, roller blades, skateboards and other similar



modes of travel. In urban areas, many riding horses are kept within the 10 mile journey distance and they must not be disadvantaged by new facilities that may be put in place for the cyclists. Level crossings which are currently used by equestrians should not be replaced by alternatives which would preclude the use by equestrians, for example, a footbridge. Similarly, other infrastructure like gates, bridges, cattle grids and slippery surfaces should all be installed with equestrians in mind. Access control must always be the least restrictive option.

The British Horse Society (BHS) represents the interests of the 3.4 million people in the UK who ride or who drive horse-drawn vehicles. With the membership of its Affiliated Riding Clubs and Bridleway Groups, the BHS is the largest and most influential equestrian charity in the UK. The BHS is committed to promoting the interests of all equestrians and the welfare of horses and ponies through education and training.

Please see attached an information sheet on equestrian access.

<https://www.pathsforall.org.uk/resource/outdoor-access-design-guide>

With over 70k equines in Scotland, equestrianism is worth £650 million to the Scottish economy annually with the Scottish Racing industry contributing £300 million and the rest of the industry generating £355 million according to recent research (Developing Benchmarks & Trends to Measure Equestrian Activity in Scotland - A report produced by the British Equestrian Trade Association August 2019 And Scottish Racing Annual Review and 2019 Outlook)

I trust that the above information is of assistance.

REDACTED

**HELENE MAUCHLEN  
SCOTTISH NATIONAL MANAGER  
THE BRITISH HORSE SOCIETY**

## BT - Consultation Response

**From:** radionetworkprotection@bt.com  
**Sent:** 21 July 2021 13:20  
**To:** Econsents Admin  
**Cc:** radionetworkprotection@bt.com  
**Subject:** Request for Scoping Opinion - Lorg Wind Farm Our Ref WID11574T1-T12

**OUR REF; WID11574**

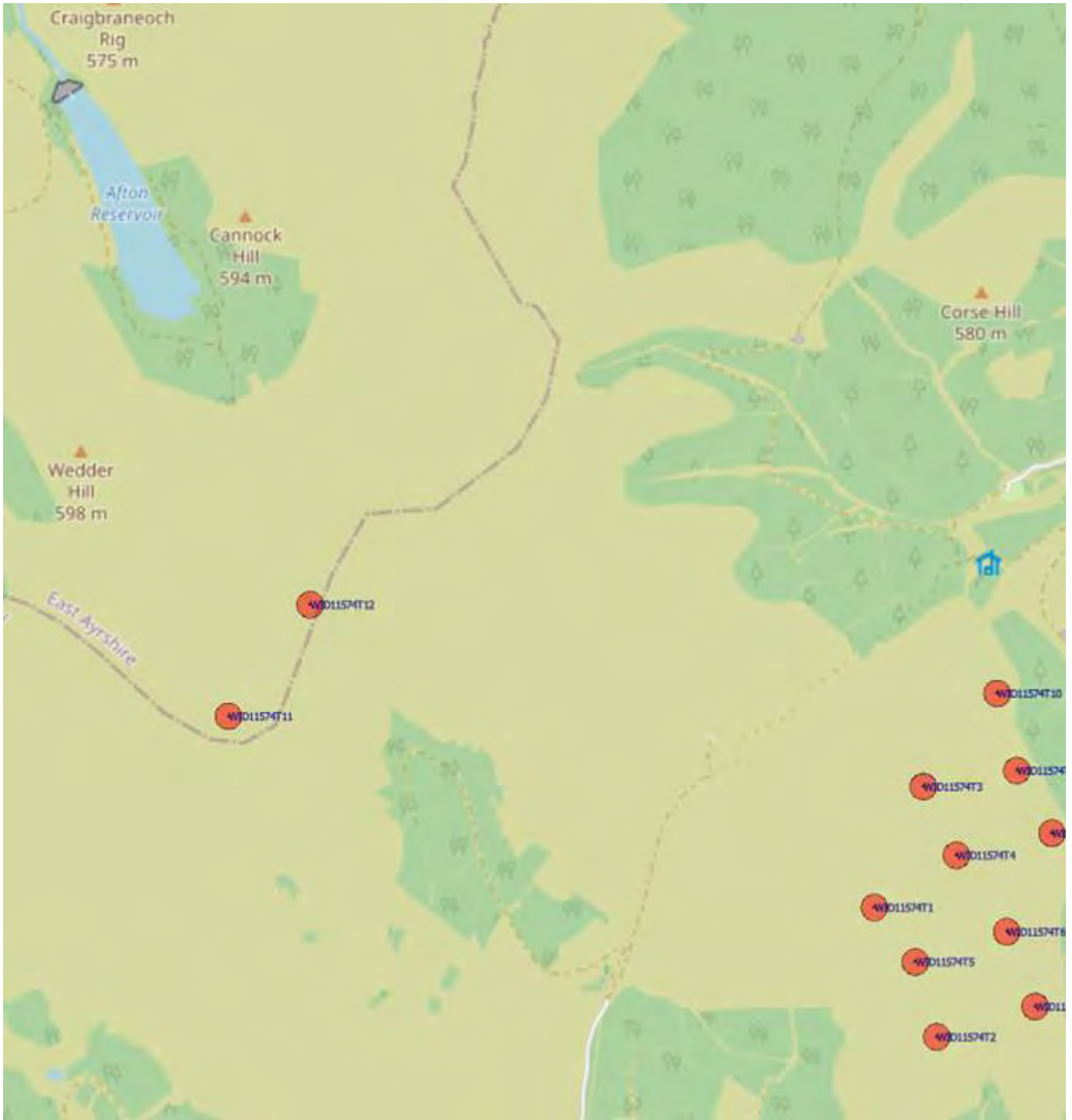
Thank you for your email dated 5<sup>th</sup> July 2021.

We have studied this windfarm proposal (using the attached Table 2-1 Indicative Turbine Coordinates) with respect to EMC and related problems to BT point-to-point microwave radio links.

WID11574T1	267803	599820
WID11574T2	268156	599030
WID11574T3	268120	600538
WID11574T4	268307	600119
WID11574T5	268040	599485
WID11574T6	268597	599650
WID11574T7	268687	600618
WID11574T8	268754	599195
WID11574T9	268887	600235
WID11574T10	268581	601085
WID11574T11	263943	601088
WID11574T12	264456	601744

The conclusion is that, the Project indicated should not cause interference to BT's current and presently planned radio network.

Please see below map which shows there are no radio links (purple line) near the location of the proposed turbine (red dots labelled WID11574T1-T12)



Please direct all queries to [radionetworkprotection@bt.com](mailto:radionetworkprotection@bt.com)

**Debra Baldwin**  
Radio Planner  
Networks - Engineering Services Radio Planning

T: REDACTED  
M: REDACTED



Crown Estate Scotland - Consultation Response

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**From:** Olivia Morrad <olivia.morrad@crownestatescotland.com>  
**Sent:** 14 July 2021 14:50  
**To:** Brown C (Carolanne)  
**Subject:** RE: Request for Scoping Opinion - Lorg Wind Farm

Good afternoon Carolanne

I write to confirm that the assets of Crown Estate Scotland are not affected by this proposal and we therefore have no comments to make.

Best regards

RED  
ACT

**Olivia Morrad**  
**Assistant Portfolio Co-ordinator**  
**Crown Estate Scotland**

t: REDACTED

**Our team are currently working from home. Mail is occasionally being collected from our offices (addresses are at [www.crownestatescotland.com/contact-us](http://www.crownestatescotland.com/contact-us)). Where possible, please email or call us rather than post mail.**

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Dalmellington Community Council - Consultation Response

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**From:** Dalmellington Community Council REDACTED  
**Sent:** 21 July 2021 13:53  
**To:** Brown C (Carolanne)  
**Subject:** Re: FW: Request for Scoping Opinion - Lorg Wind Farm

Dear Carolanne

We currently have not received any comments from our local community and the Community Council have no comment to make. We will not require an extension.

Kind regards  
Lorraine Mair  
Chairperson  
Dalmellington CC



# Defence Infrastructure Organisation

**Jill Roberts**  
Ministry of Defence  
Safeguarding Department  
St George's House  
DIO Headquarters  
DMS Whittington  
**Lichfield**  
**Staffordshire**  
**WS 14 9PY**

Your Reference: ECU00003283

Tel: REDACTED

Our Reference: DIO10052064

Email: Jjillian.roberts156@mod.gov.uk

Carolanne Brown  
Energy Consents Unit  
Scottish Government  
5 Atlantic Quay  
150 Broomielaw  
Glasgow  
G2 8LU

03 August 2021

## By email only

Dear Carolanne

Application reference: ECU00003283  
Site Name: Lorg Wind Farm  
Proposal: Scoping ELECTRICITY ACT 1989  
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT)  
(SCOTLAND) REGULATIONS 2017  
REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36  
APPLICATION FOR LORG WIND FARM

Site address: 11km north east of Carsphairn area Dumfries and Galloway Council, and  
East Ayrshire Council

Thank you for consulting the Ministry of Defence (MOD) in relation to the Scoping Opinion through your communication dated 05 July 2021.

The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the MOD as a consultee in UK planning and energy consenting systems to ensure that development does not compromise or degrade the operation of defence sites such as aerodromes, explosives storage sites, air weapon ranges, and technical sites or training resources such as the Military Low Flying System.

I am writing to tell you that, subject to the provision of appropriate lighting, the MOD has no concerns in relation to this application.

The application concerns a development of 12 turbines with maximum blade tip heights of 200 metres above ground level. The development has been assessed using the location data OS grid references below as provided by the submitted Scoping Report dated May 2021.

Turbine no.	Easting	Northing
1	267806	599820
2	268156	599030
3	268120	600538
4	268307	600119
5	268040	599485
6	268597	599650
7	268687	600618
8	268754	599195
9	268887	600235
10	268581	601085
11	263943	601088
12	264456	601744

The principal safeguarding concerns of the MOD with respect to this development of wind turbines relates to their potential to create a physical obstruction to air traffic movements.

### **Physical Obstruction**

In this case the development falls Low Flying Area 14 (LFA), an area within which fixed wing aircraft may operate as low as 250feet or 76.2m above ground level to conduct low level flight training. The addition of turbines in this location has the potential to introduce a physical obstruction to low flying aircraft operating in the area.

As a minimum the MOD would require conditions that require the development to be fitted with MOD accredited aviation safety lighting in accordance with the Air Navigation Order 2016, and that sufficient data is submitted to allow accurate charting.

### **Summary**

Defence Infrastructure Organisation Safeguarding wishes to be consulted and notified of any alterations or other submissions relating to this proposal in order that amendments can be checked for any additional impact on defence interests. Even the slightest change to the form and layout of the scheme may have significant impacts.

I hope this adequately explains our position on the matter. If you require further information or would like to discuss this matter further, please do not hesitate to contact me.

Further information about the effects of wind turbines on MOD interests can be obtained from the following websites:

**MOD:** <https://www.gov.uk/government/publications/wind-farms-ministry-of-defence-safeguarding>

Yours sincerely,

REDACTED

Jill Roberts  
DIO Safeguarding

## Fisheries Management Scotland (FMS) - Consultation Response

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**From:** Brian Davidson <brian@fms.scot>  
**Sent:** 22 July 2021 13:07  
**To:** Brown C (Carolanne)  
**Cc:** Jim Henderson (Nith DSFB); Debbie Parke (trust@river-nith.com); Jamie Ribbens (jamie@gallowayfisheritrust.org); James Ingall REDACTED  
**Subject:** RE: Request for Scoping Opinion - Lorg Wind Farm

Dear Carolanne,

Thank you for your correspondence concerning the proposed Lorg wind farm.

Fisheries Management Scotland (FMS) represents the network of Scottish District Salmon Fishery Boards (DSFBs) including the River Tweed Commission (RTC), who have a statutory responsibility to protect and improve salmon and sea trout fisheries and the fishery trusts who provide a research, educational and monitoring role for all freshwater fish.

FMS act as a convenient central point for Scottish Government and developers to seek views on local developments. However, as we do not have the appropriate local knowledge, or the technical expertise to respond to specific projects, we are only able to provide a general response with regard to the potential risk of such developments to fish, their habitats and any dependent fisheries. Accordingly, our remit is confined mainly to alerting the relevant local DSFB/Trust to any proposal.

The proposed development straddles the catchments of both the Dee and Nith District Salmon Fishery Boards, and the catchments relating to the Galloway Fisheries Trust and Nith Catchment Fisheries Trust. It is important that the proposals are conducted in full consultation with these organisations (see link to FMS member DSFBs and Trusts below). We have also copied this response to these organisations.

Due to the potential for such developments to impact on migratory fish species and the fisheries they support, FMS have developed, in conjunction with Marine Scotland Science, advice for DSFBs and Trusts in dealing with planning applications. We would strongly recommend that these guidelines are fully considered throughout the planning, construction and monitoring phases of the proposed development.

- [LINK TO ADVICE ON TERRESTRIAL WINDFARMS](#)
- [LINK TO DSFB CONTACT DETAILS](#)
- [LINK TO FISHERY TRUST CONTACT DETAILS](#)

Regards,

RED  
ACT

Brian Davidson | Dir Communications & Administration  
Fisheries Management Scotland  
11 Rutland Square, Edinburgh, EH1 2AS  
Tel: REDACTED | REDACTED  
[www.fms.scot](http://www.fms.scot)



---

**From:** Ed Forrest <ed@gsabiosphere.org.uk>  
**Sent:** 05 July 2021 14:47  
**To:** Brown C (Carolanne)  
**Subject:** RE: Request for Scoping Opinion - Lorg Wind Farm

Hi Carolanne

Having checked the location the Biosphere will not be submitting a response to the scoping consultation as it is outwith the Core and Buffer of the Biosphere and we don't have the capacity at present to respond to proposals in the transition area.

Kind Regards

ED

## Galloway Fisheries Trust (GFT) - Consultation Response

---

**From:** Jamie Ribbens <jamie@gallowayfisheriestrust.org>  
**Sent:** 02 August 2021 00:12  
**To:** Brown C (Carolanne)  
**Cc:** James Ingall  
**Subject:** RE: Request for Scoping Opinion - Lorg Wind Farm

Dear Carolanne

Thank you for providing the Galloway Fisheries Trust (GFT) with the opportunity to submit a response to this consultation. The Galloway Fisheries Trust (GFT) is a charitable organisation which was formed in 1988, by a number of neighboring District Salmon Fishery Boards in Dumfries and Galloway. The aim of the GFT is to undertake research, provide advice and complete practical works to protect and enhance aquatic biodiversity, particularly fish species, living in the freshwaters and river catchments across Dumfries and Galloway. GFT provide scientific support and fisheries advice to the Kirkcudbrightshire Dee District Salmon Fishery Board. For further information on GFT see [www.gallowayfisheriestrust.org](http://www.gallowayfisheriestrust.org)

Generally we agree with the scoping plan outline.

We wish to make the following specific comments / observations:

- We agree that an EIA should be undertaken for this proposed development.
- We support that the following documents will be produced: Construction Environmental Management Plan (CEMP), Habitat Management Plan (HMP), Species Protection Plans (SPPs) and Peat Management Plan (PMP).
- Under 9.2.1 where there is reference to who will be consulted for the Ecology chapter there is reference to the Nith DSFB but no reference to Galloway Fisheries Trust / Kirkcudbrightshire Dee District Salmon Fishery Board. GFT / KDDSFBS should be included in the consultation list as the Water of Ken will potentially be impacted by the proposed development.
- Under 9.2.9, it should be considered that baseline electrofishing data be collected from significant watercourses on the site as part of the EIA. It is important to understand what fish populations are present within the development site.
- We are concerned to the reference of undertaking 'a fisheries watercourse evaluation survey' with no explanation to the methodology to be used. We have come across similar surveys used on some windfarm developments which have been poorly designed and not provided the information required for the EIA. In particular these 'assessments' on some developments have incorrectly concluded various water courses as being of no importance to fisheries when in fact GFT have known they can support sensitive trout populations. In those cases, the assessment methodology has been considered as not fit for purpose. It is important that a recognised methodology is used by experienced and knowledgeable surveyors.
- We would appreciate the opportunity to comment in due course on the proposed Habitat Management Plan for the site. We feel there would be opportunities to improve the habitat for aquatic ecology especially fish. Riparian tree planting, using native deciduous species, could help to address future concerns with climate change driven increases in water temperatures.

The following have the potential to impact fish species and their habitats. These points/potential issues are of general concern and interest to us:

- Access track layout in relation to the proximity to sensitive fish habitat (e.g. spawning habitat);
- The number of watercourse crossings (new and upgraded);
- The location of new and upgraded watercourse crossings;

- New and upgraded watercourse crossing type, design, and structure, including information relating to the installation of each crossing point (e.g. maintaining the existing gradient, maintaining fish access at all water heights etc.);
- Construction information for new tracks (including layby locations), trackside drainage plans and designs especially in relation to increased run off rates;
- Turbine base locations;
- Turbine base excavation and associated run off from loose ground;
- Peat depth information in relation to water quality, peat slides or ground slips;
- Borrow pit locations;
- Changes to instream hydrological conditions and flush zones;
- Exacerbated erosion and/or elevated levels of suspended silt to watercourses during construction activities;
- Water quality monitoring information;
- Pollution to watercourses in the form of silt pollution;
- Pollution to watercourses in the form of chemical pollution;
- Reduction in quantity and quality of instream habitat;
- Adverse changes to instream morphology;
- Direct mortality of fish species;
- Mitigation measures to protect fish population and their habitats from the impact from all of the above;
- Timings of specific works such as new track building, new watercourse crossing installation, upgrading of existing watercourse crossings;
- Mitigation measures to protect watercourses, fish and their habitats – that which is built in to the design of the development and any additional mitigation measures which will be employed if required.

If you have any queries or would like clarification on any of the points raised above, please do not hesitate to contact me.

Regards  
RED  
ACT

**Jamie Ribbens BSc (Hons) MSc**  
*Senior Fisheries Biologist*

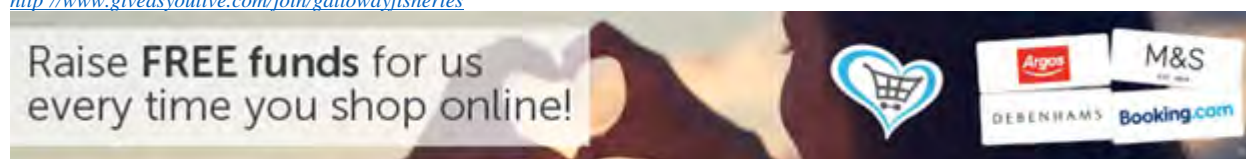
Galloway Fisheries Trust, Fisheries House, Station Industrial Estate, Newton Stewart, Wigtownshire, DG8 6ND  
Tel: REDACTED  
A Scottish Registered Charity (No. SC 020751)

E: [jamie@gallowayfisheriestrust.org](mailto:jamie@gallowayfisheriestrust.org) W: [www.gallowayfisheriestrust.org](http://www.gallowayfisheriestrust.org)



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<http://www.giveasyoulive.com/join/gallowayfisheries>



FAO Carolanne Brown  
Energy Consents  
By Email

21<sup>st</sup> July 2021

Dear Carolanne

**REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR  
LORG WIND FARM**  
**Our reference: GLA4007**

I refer to your request for scoping opinion received in this office on 5<sup>th</sup> July 2021.

The scoping report submitted has been examined from an aerodrome safeguarding perspective and we would make the following observations:

- The site is located outwith the obstacle limitation surfaces for Glasgow Airport;
- It is outwith the radar consultation area for Glasgow Airport;
- It is within the Instrument Flight Procedure area for Glasgow Airport and may impact upon procedures. Early engagement with the airport is recommended to fully assess potential impact.

Our position with regard to this proposal will only be confirmed once the turbine details are finalized and we have been consulted on a full planning application. At that time we will carry out a full safeguarding impact assessment and will consider our position in light of, inter alia, operational impact and cumulative effects.

Yours sincerely  
REDACTED

Kirsteen MacDonald

Safeguarding Manager  
Glasgow Airport  
REDACTED

[Kirsteen.MacDonald@glasgowairport.com](mailto:Kirsteen.MacDonald@glasgowairport.com)

Glasgow Prestwick Airport (GPA) Ltd - Consultation Response

---

**From:** Steve Thomson  
**Sent:** 26 July 2021 10:55  
**To:** Econsents Admin; Brown C (Carolanne)  
**Cc:** Safeguarding; Windfarm  
**Subject:** Request for Scoping Opinion - Lorg Wind Farm - formal response from Glasgow Prestwick Airport (GPA) Ltd - 26th July 2021

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Carolanne

1. On behalf of Glasgow Prestwick Airport (GPA) Ltd – we have reviewed the Scoping Report (and associated documents) available on the Energy Consents Unit portal for the proposed Lorg Wind farm (ECU00003283) .
2. The proposed scope of the Environmental Impact Assessment (EIA) seems appropriate and we welcome the statement within the EIA that the Developer will engage with GPA on aviation matters.

However GPA remain interested in how the Developer proposes to address the aviation warning obstruction lighting scheme as required by UK CAA for obstacles greater than 150m in height above local ground level in accordance with Article 222 of the UK Air Navigation Order (ANO) 2016 and request to be consulted with on the proposed aviation lighting scheme.

3. Preliminary Line of Sight (LOS) analysis at the proposed turbine tip heights of 200m for the Lorg Wind Farm – indicates that a number of turbines would be visible to the GPA primary radars, with other turbines that are marginally terrain shielded and we request the Developer engages with GPA on this matter – to allow a more detailed radar LOS modelling assessment to be undertaken to establish the visibility (or otherwise) of the proposed scheme to GPA’s primary radars.

It will be necessary that further detailed radar modelling assessments/flight trials are undertaken to confirm the exact number of turbines visible to GPA primary radars – and whether the clutter from the visible turbines can be mitigated for the lifetime of the windfarm via an appropriate radar technology solution and associated mitigation agreement.

4. Given the tip height (200m) of the proposed turbines, we also request that the Developer engages with GPA to establish fully if the proposed development is likely to have any impact on our published Instrument Flight Procedures (IFP’s) – both conventional and RNAV/RNP published IFP’s as published in the UK Aeronautical Information Publication (AIP) for GPA (EGPK).
5. A preliminary ATC Operational Assessment indicates that this is an area of airspace where GPA provide an air traffic service, and as such if some of the turbines are visible to our primary radar then mitigation will be required.
6. GPA respectfully request that we are consulted with, should this proposed development be submitted as a full Section 36 Planning application, to allow a full ATC operational impact assessment to be conducted against the proposed development, together with a technical assessment against all Communications, Navigation and Surveillance (CNS) equipment(s) installed at GPA.
7. Should this proposed development result in a full Section 36 Planning Application, it is likely GPA would **object** to the development until such times as the aviation safety matters detailed above were appropriately addressed.

8. In line with CAP764 – *'Policy & Guideline on Wind Farms'*, GPA would welcome early dialogue and engagement with the Developer to address the aviation concerns raised above.

With Kind Regards

Steve Thomson

## Historic Environment Scotland - Consultation Response

---

**From:** Urszula Szupczynska <urszula.szupczynska@hes.scot>  
**Sent:** 22 July 2021 12:20  
**To:** Brown C (Carolanne)  
**Subject:** FW: 300019751 - FW: Request for Scoping Opinion - Lorg Wind Farm

Good afternoon Carolanne,

I can confirm that we will be able to meet the deadline of 26 July for the above project.

Our comments will be very brief. We are generally content with the proposed scope of assessment but will be recommending adding Craigenkillan GDL to the list of assets identified as potential receptors.

We note that the scoping report does not contain a very detailed assessment methodology for the historic environment but presume that this would be made available once a cultural heritage consultant gets on board. Our understanding is that the previous Environmental Statement Historic Environment chapters (2015 ES; 2017 FEI; 2019 ES) for the site will also be utilised.

We also note that the applicant still refers to the Historic Environment Scotland Policy Statement (2016), which has now been replaced by the Historic Environment Policy for Scotland (2019).

Many thanks  
Urszula

**Urszula Szupczynska | Senior Environmental Assessment and Advice Officer | Environmental Assessment and Advice Team | Heritage Directorate**

*We inform and enable good decision-making so that the historic environment of Scotland is valued and protected.*

Historic Environment Scotland | Àrainneachd Eachdraidheil Alba  
Longmore House, Salisbury Place, Edinburgh EH9 1SH

T: REDACTED

M: REDACTED

E: [urszula.szupczynska@hes.scot](mailto:urszula.szupczynska@hes.scot)

In 2019 we adopted the new Historic Environment Policy for Scotland. You can see the full set of policy and guidance online at [www.historicenvironment.scot/heps](http://www.historicenvironment.scot/heps).



HISTORIC  
ENVIRONMENT  
SCOTLAND

ÀRAINNEACHD  
EACHDRAIDHEIL  
ALBA



---

**From:** Rosie Simpson <rosie.simpson@johnmuirtrust.org>  
**Sent:** 23 July 2021 10:08  
**To:** Brown C (Carolanne)  
**Subject:** RE: Request for Scoping Opinion - Lorg Wind Farm

Dear Carolanne,

Thank you for this reminder too. I can confirm we will not be making any comments on this scoping opinion.

Best wishes,  
Rosie



---

**From:** JRC Windfarm Coordinations <windfarms@jrc.co.uk>  
**Sent:** 07 July 2021 14:52  
**To:** Brown C (Carolanne)  
**Cc:** albert ogundipe; Scottish Power  
**Subject:** FW: Lorg Wind Farm - Information request from JRC [WF939694]

Dear carolanne,

A Windfarms Team member has replied to your co-ordination request, reference **WF939694** with the following response:

*Dear Sir/Madam,*

**Site Name:**

*Lorg Windfarm*

**Turbine at NGR:**

<b>Component</b>	<b>Maximum Height (m)</b>	<b>Location (NGR)</b>
<b>Turbine 1</b>	200	E 267803, N 599820
<b>Turbine 2</b>	200	E 268156, N 599030
<b>Turbine 3</b>	200	E 268120, N 600538
<b>Turbine 4</b>	200	E 268307, N 600119
<b>Turbine 5</b>	200	E 268040, N 599485
<b>Turbine 6</b>	200	E 268597, N 599650
<b>Turbine 7</b>	200	E 268687, N 600618
<b>Turbine 8</b>	200	E 268754, N 599195
<b>Turbine 9</b>	200	E 268887, N 600235
<b>Turbine 10</b>	200	E 268581, N 601085
<b>Turbine 11</b>	200	E 263943, N 601088
<b>Turbine 12</b>	200	E 264456, N 601744

**Hub Height:** 122.5m **Rotor Radius:** 77.5m

*This proposal \*cleared\* with respect to radio link infrastructure operated by:*

**Scottish Power and Scotia Gas Networks**

*JRC analyses proposals for wind farms on behalf of the UK Fuel & Power Industry. This is to assess their potential to interfere with radio systems operated by utility companies in support of their regulatory operational requirements.*

*In the case of this proposed wind energy development, JRC does not foresee any potential problems based*

*on known interference scenarios and the data you have provided. However, if any details of the wind farm change, particularly the disposition or scale of any turbine(s), it will be necessary to re-evaluate the proposal. Please note that due to the large number of adjacent radio links in this vicinity, which have been taken into account, clearance is given specifically for a location within the declared grid reference (quoted above).*

*In making this judgement, JRC has used its best endeavours with the available data, although we recognise that there may be effects which are as yet unknown or inadequately predicted. JRC cannot therefore be held liable if subsequently problems arise that we have not predicted.*

*It should be noted that this clearance pertains only to the date of its issue. As the use of the spectrum is dynamic, the use of the band is changing on an ongoing basis and consequently, you are advised to seek re-coordination prior to submitting a planning application, as this will negate the possibility of an objection being raised at that time as a consequence of any links assigned between your enquiry and the finalisation of your project.*

*JRC offers a range of radio planning and analysis services. If you require any assistance, please contact us by phone or email.*

*Regards*

*Wind Farm Team*

*Friars House  
Manor House Drive  
Coventry CV1 2TE  
United Kingdom*

*Office: 02476 932 185*

*JRC Ltd. is a Joint Venture between the Energy Networks Association (on behalf of the UK Energy Industries) and National Grid.*

*Registered in England & Wales: 2990041*

*<http://www.jrc.co.uk/about-us>*

*JRC is working towards GDPR compliance. We maintain your personal contact details in accordance with GDPR requirements for the purpose of "Legitimate Interest" for communication with you. However you have the right to be removed from our contact database. If you would like to be removed, please contact [anita.lad@jrc.co.uk](mailto:anita.lad@jrc.co.uk).*

We hope this response has sufficiently answered your query.

If not, please **do not send another email** as you will go back to the end of the mail queue, which is not what you or we need. Instead, **reply to this email by clicking on the link below or login to your account** for access to your co-ordination requests and responses.

<https://breeze.jrc.co.uk/tickets/view.php?id=24403>

## NATS Safeguarding - Consultation Response

---

**From:** NATS Safeguarding <NATSSafeguarding@nats.co.uk>  
**Sent:** 15 July 2021 16:14  
**To:** Econsents Admin  
**Subject:** RE: Request for Scoping Opinion - Lorg Wind Farm [SG16232]  
**Attachments:** SG16232 Lorg Wind Farm - TOPA - Issue 6.pdf

Our Ref: SG16232  
Dear Sir/Madam

We refer to the application above. The proposed development has been examined by our technical safeguarding teams and conflicts with our safeguarding criteria.

Accordingly, NATS (En Route) plc **objects to the proposal**. The reasons for NATS's objection are outlined in the attached report TOPA SG16232.

We would like to take this opportunity to draw your attention to the legal obligation of local authorities to consult NATS before granting planning permission. The obligation to consult arises in respect of certain applications that would affect a technical site operated by or on behalf of NATS (such sites being identified by safeguarding plans that are issued to local planning authorities).

In the event that any recommendations made by NATS are not accepted, local authorities are obliged to follow the relevant directions within Planning Circular 2 2003 - Scottish Planning Series: Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) (Scotland) Direction 2003 or Annex 1 - The Town And Country Planning (Safeguarded Aerodromes, Technical Sites And Military Explosives Storage Areas) Direction 2002.

These directions require that the planning authority notify both NATS and the Civil Aviation Authority ("CAA") of their intention. As this further notification is intended to allow the CAA to consider whether further scrutiny is required, the notification should be provided prior to any granting of permission.

It should also be noted that the failure to consult NATS, or to take into account NATS's comments when determining a planning application, could cause serious safety risks for air traffic.

Should you have any queries, please contact us using the details below.

Yours faithfully



**NATS Safeguarding**

E: [natssafeguarding@nats.co.uk](mailto:natssafeguarding@nats.co.uk)

4000 Parkway, Whiteley,  
Fareham, Hants PO15 7FL

[www.nats.co.uk](http://www.nats.co.uk)



NATS Public

Redacted

Prepared by:  
NATS Safeguarding Office



# Technical and Operational Assessment (TOPA)

For Lorg  
Wind Farm Development

**NATS ref: SG16232**

**Scottish Government ref: ECU00003283**

**Issue 6**

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## Notice

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## Publication History

Issue	Month/Year	Change Requests and summary
1	November 2012	Scottish Government submission
2	April 2014	Pre planning submission
3	May 2014	Correction to diagrams
4	January 2016	LPA submission
5	November 2017	LPA submission – amended
6	July 2021	Scoping request

## Document Use

External use: Yes

## Referenced Documents

## 1. Background

### 1.1. En-route Consultation

NATS en-route plc is responsible for the safe and expeditious movement in the en-route phase of flight for aircraft operating in controlled airspace in the UK. To undertake this responsibility it has a comprehensive infrastructure of RADAR's, communication systems and navigational aids throughout the UK, all of which could be compromised by the establishment of a wind farm.

In this respect NATS is responsible for safeguarding this infrastructure to ensure its integrity to provide the required services to Air Traffic Control (ATC).

In order to discharge this responsibility NATS is a statutory consultee for all wind farm applications, and as such assesses the potential impact of every proposed development in the UK.

The technical assessment sections of this document define the assessments carried out against the development proposed in section 3.

## 2. Scope

This report provides NATS En-Route plc's view on the proposed application in respect of the impact upon its own operations and in respect of the application details contained within this report.

Where an impact is also anticipated on users of a shared asset (e.g. a NATS RADAR used by airports or other customers), additional relevant information may be included for information only. While an endeavour is made to give an insight in respect of any impact on other aviation stakeholders, it should be noted that this is outside of NATS' statutory obligations and that any engagement in respect of planning objections or mitigation should be had with the relevant stakeholder, although NATS as the asset owner may assist where possible.

### 3. Application Details

Scottish Government submitted a request for a NATS technical and operational assessment (TOPA) for the development at Lorg Wind Farm. It will comprise turbines as detailed in Table 1 and contained within an area as shown in the diagrams contained in Appendix B.

Turbine	Lat	Long	East	North	Tip Height (m)
1	55.2747	-4.0825	267803	599820	200
2	55.2677	-4.0766	268156	599030	200
3	55.2813	-4.0778	268120	600538	200
4	55.2776	-4.0747	268307	600119	200
5	55.2718	-4.0786	268040	599485	200
6	55.2734	-4.0699	268597	599650	200
7	55.2821	-4.0689	268687	600618	200
8	55.2694	-4.0672	268754	599195	200
9	55.2787	-4.0656	268887	600235	200
10	55.2863	-4.0708	268581	601085	200
11	55.2851	-4.1438	263943	601088	200
12	55.2911	-4.1361	264456	601744	200

**Table 1 – Turbine Details**

### 4. Assessments Required

The proposed development falls within the assessment area of the following systems:

RADAR	Lat	Long	nm	km	Az (deg)	Type
Great Dun Fell Radar	54.6841	-2.4509	66.0	122.3	303.0	CMB
Lowther Hill Radar	55.3778	-3.7530	12.2	22.6	242.2	CMB
Perwinnes Radar	57.2123	-2.1309	132.7	245.8	210.2	CMB
Tiree Radar	56.4556	-6.9230	117.3	217.3	125.2	CMB
En-route Nav	Lat	Long	nm	km	Az (deg)	Type
None						
En-route AGA	Lat	Long	nm	km	Az (deg)	Type
None						

**Table 2 – Impacted Infrastructure**



## 4.1. En-route RADAR Technical Assessment

### 4.1.1. Predicted Impact on Great Dun Fell RADAR

Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the RADAR's probability of detection, for real aircraft, is also anticipated.

### 4.1.1. Predicted Impact on Lowther RADAR

Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the RADAR's probability of detection, for real aircraft, is also anticipated.

### 4.1.2. En-route operational assessment of RADAR impact

Where an assessment reveals a technical impact on a specific NATS' RADAR, the users of that RADAR are consulted to ascertain whether the anticipated impact is acceptable to their operations or not.

Unit or role	Comment
Prestwick Centre	Unacceptable

*Note: The technical impact, as detailed above, has also been passed to non-NATS users of the affected RADAR, this may have included other planning consultees such as the MOD or other airports. Should these users consider the impact to be unacceptable it is expected that they will contact the planning authority directly to raise their concerns.*

## 4.2. En-route Navigational Aid Assessment

### 4.2.1. Predicted Impact on Navigation Aids

No impact is anticipated on NATS' navigation aids.

## 4.3. En-route Radio Communication Assessment

### 4.3.1. Predicted Impact on the Radio Communications Infrastructure

No impact is anticipated on NATS' radio communications infrastructure.

## 5. Conclusions

### 5.1. En-route Consultation

The proposed development has been examined by technical and operational safeguarding teams. A technical impact is anticipated, this has been deemed to be unacceptable.

## Appendix A – Background RADAR Theory

### Primary RADAR False Plots

When RADAR transmits a pulse of energy with a power of  $P_t$  the power density,  $P$ , at a range of  $r$  is given by the equation:

$$P = \frac{G_t P_t}{4\pi r^2}$$

Where  $G_t$  is the gain of the RADAR's antenna in the direction in question.

If an object at this point in space has a RADAR cross section of  $\sigma$ , this can be treated as if the object re-radiates the pulse with a gain of  $\sigma$  and therefore the power density of the reflected signal at the RADAR is given by the equation:

$$P_a = \frac{\sigma P}{4\pi r^2} = \frac{\sigma G_t P_t}{(4\pi)^2 r^4}$$

The RADAR's ability to collect this power and feed it to its receiver is a function of its antenna's effective area,  $A_e$ , and is given by the equation:

$$P_r = P_a A_e = \frac{P_a G_r \lambda^2}{4\pi} = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r^4}$$

Where  $G_r$  is the RADAR antenna's receive gain in the direction of the object and  $\lambda$  is the RADAR's wavelength.

In a real world environment this equation must be augmented to include losses due to a variety of factors both internal to the RADAR system as well as external losses due to terrain and atmospheric absorption.

For simplicity these losses are generally combined in a single variable  $L$

$$P_r = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r^4 L}$$

## Secondary RADAR Reflections

When modelling the impact on SSR the probability that an indirect signal reflected from a wind turbine has the signal strength to be confused for a real interrogation or reply can be determined from a similar equation:

$$P_r = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r_t^2 r_r^2 L}$$

Where  $r_t$  and  $r_r$  are the range from RADAR-to-turbine and turbine-to-aircraft respectively. This equation can be rearranged to give the radius from the turbine within which an aircraft must be for reflections to become a problem.

$$r_r = \sqrt{\frac{\lambda^2}{(4\pi)^3}} \sqrt{\frac{\sigma G_t G_t P_t}{r_t^2 P_r L}}$$

## Shadowing

When turbines lie directly between a RADAR and an aircraft not only do they have the potential to absorb or deflect, enough power such that the signal is of insufficient level to be detected on arrival.

It is also possible that azimuth determination, whether this done via sliding window or monopulse, can be distorted giving rise to inaccurate position reporting.

## Terrain and Propagation Modelling

All terrain and propagation modelling is carried out by a software tool called ICS Telecom (version 11.1.7). All calculations of propagation losses are carried out with ICS Telecom configured to use the ITU-R 526 propagation model.

Appendix B – Diagrams

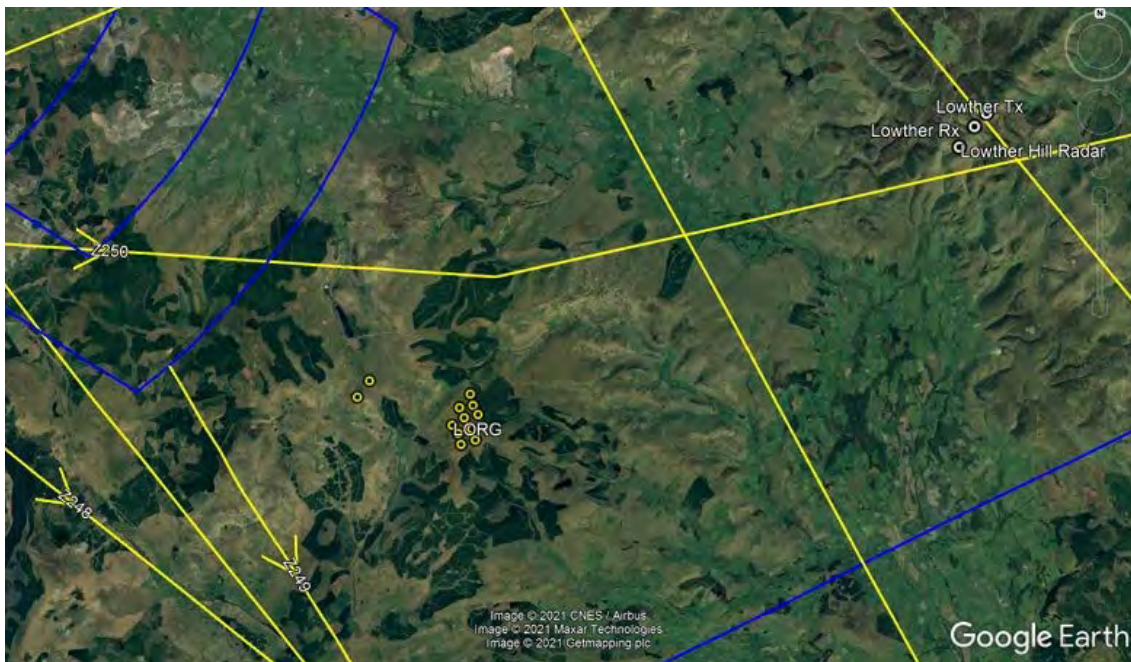


Figure 1: Proposed development location shown on an airways chart

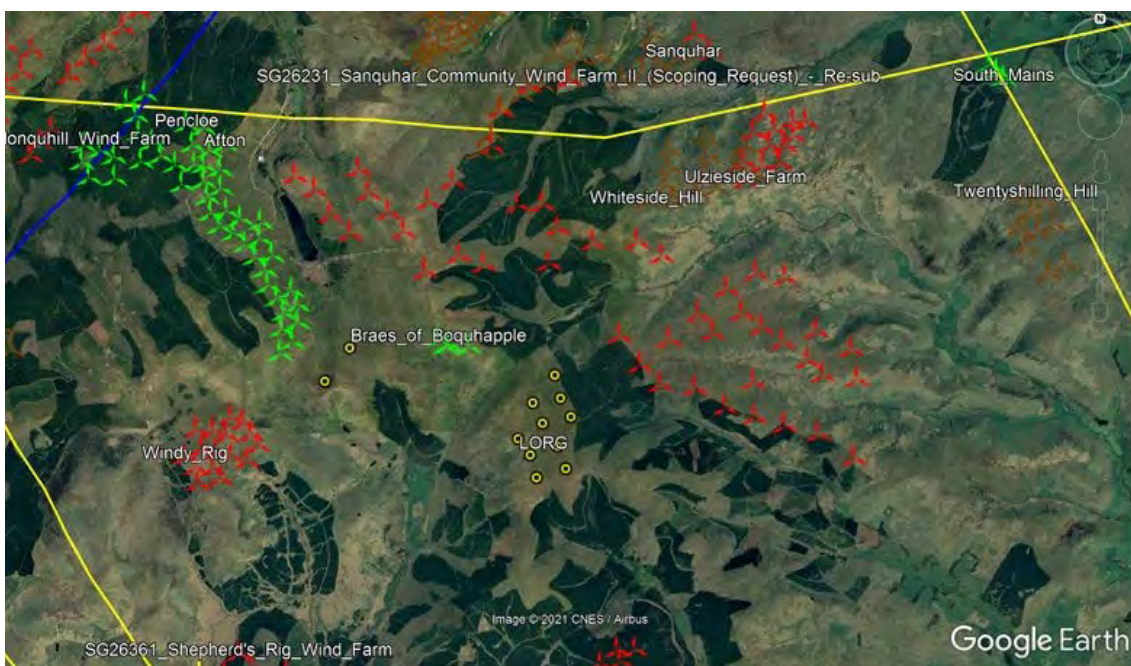


Figure 2: Proposed development shown alongside other recently assessed applications

- consented/built
  impact –accepted
  impact –objection
  mitigated
- mitigation –proposed
  no impact
  refused/withdrawn

Carolanne Brown  
Energy Consents Unit  
Scottish Government  
5 Atlantic Quay  
150 Broomielaw, Glasgow  
G2 8LU

26 July 2021

Our ref: CPA163708

Your ref: ECU00003283

Dear Carolanne

**ELECTRICITY ACT 1989**

**THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017**

**REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR LORG WIND FARM**

Thank you for consulting NatureScot on the scoping document for the proposed extension to Lorg wind farm, which is for 12 turbines up to 200 metres to tip. Below are addressed the topic areas relevant to NatureScot's remit.

**Appraisal**

I am satisfied with the proposed scope and work undertaken to date with respect to landscape and ecology. We have no additional comments to make on these topics at this stage.

Ornithology

We note that the survey work undertaken thus far has recorded 14 target species. Although the scoping report suggests there is relatively low levels of flight activity, there is no information presented on flight duration and we cannot comment on this statement at this stage. Clearly the cumulative assessment will be important an element of the assessment, as will ongoing consultation with the RSPB and local raptor study group, which we are pleased to see there is commitment to. We are satisfied with the survey and proposed assessment methodology.

## Peatland

Scottish Planning Policy identifies “carbon rich soils, deep peat and priority peatland habitat” as nationally important interests. Our GIS data suggest that this area is comprised almost entirely of class 1, peatland although it appears from aerial imagery that the site has an abundance of drains, which would concur with comments in the scoping report. Nevertheless it is clear that peatland management will be an important element of the EIA. We would therefore refer the applicant to our advice note <https://www.nature.scot/doc/advising-carbon-rich-soils-deep-peat-and-priority-peatland-habitat-development-management>, which provides useful assessment tools as well as advice on mitigation and restoration measures. We would encourage the use of the site visit template; and for this to be included in the EIA report;

<https://www.nature.scot/sites/default/files/202011/Site%20visit%20template%20for%20the%20assessment%20of%20peatland%20on%20proposed%20development%20sites.xlsx>

We would also request that an Outline Habitat Management Plan is presented in the EIA report which reflects the importance of all peatland in addressing the Climate and Biodiversity emergencies and strongly encourage the applicant to look into options for restoration of degraded peatland on the site if it is indeed concluded to be in poor condition due to past management.

Finally we would refer the applicant to our ‘general scoping and pre-application advice’ note at <https://www.nature.scot/doc/general-pre-application-and-scoping-advice-onshore-wind-farms> which provides advice on other considerations which should be taken into account, for example producing an outline decommissioning and restoration plan at the application stage.

Please do not hesitate to get in touch if you have any questions

Yours sincerely,

Dylan De Silva

Area Officer / Southern Scotland

[dylan.desilva@nature.scot](mailto:dylan.desilva@nature.scot)

New Galloway & Kells Community Council - Consultation Response

---

**From:** sharon fishwick REDACTED  
**Sent:** 22 July 2021 15:02  
**To:** Brown C (Carolanne)  
**Subject:** Re: FW: Request for Scoping Opinion - Lorg Wind Farm

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Afternoon

To date I have not received any comments on this application

Regards  
Sharon Fishwick  
Secretary New Galloway & Kells Community Council



Nith District Salmon Fishery Board (NDSFB) - Consultation Response

---

**From:** board@river-nith.com  
**Sent:** 30 July 2021 12:44  
**To:** Econsents Admin  
**Cc:** REDACTED  
**Subject:** Lorg Wind Farm ECU00003283

F.A.O. Carolanne Brown  
Energy Consents  
Directorate for Energy and Climate Change

Dear Ms Brown

I write on behalf of Nith District Salmon Fishery Board (NDSFB) in response for your request for comments in relation to the proposed Lorg Wind Farm, part of which straddles the River Nith Catchment. I have read the associated documentation pertaining to the Lorg proposals including the section 36 application "scoping report". Our Board are obviously primarily concerned with any activity within their area of jurisdiction with the potential to adversely impact on the fish community or the environment in which they reside. I note within the scoping report, section 9.2.9 that a "rapid watercourse evaluation will be undertaken", I can only surmise that this would be undertaken as an initial assessment and to that end I can confirm the presence of fish in most of the upper tributaries within the Afton catchment which includes part of the Lorg Wind Farm foot print.

This information on the presence of fish is important and endorses the NDSFB's policy of insisting that a full aquatic audit be undertaken as part of the environmental information ingathered to protect the environment in the vicinity of any wind farm development. This would include Freshwater Pearl Mussel, aquatic invertebrate and fish surveys in line with other developments in proximity to Lorg such as Euchan, Pencloe and North Kyle to name some examples.

NDSFB will be happy to work with the developers of Lorg to protect the aquatic environment of the River Nith.

Please accept my apologies for the late response as I only received the documentation from FMS on the 22<sup>nd</sup> of July.

Kind Regards

Jim Henderson BSc (Hons), CEnv, MIFM  
Director  
Nith District Salmon Fishery Board  
37 George Street, Dumfries, DG1 1EB  
tel: REDACTED  
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Office for Nuclear Regulation - Consultation Response

---

**From:** ONR Land Use Planning <ONR-Land.Use-Planning@onr.gov.uk>  
**Sent:** 09 July 2021 08:33  
**To:** Econsents Admin  
**Subject:** ONR Land Use Planning - Scoping Opinion - Lorg Wind Farm

**Categories:** with case officer

Dear Sir/Madam,

With regard to Scoping Opinion - Lorg Wind Farm, ONR makes no comment on this proposed development as it does not lie within a consultation zone around a GB nuclear site.

You can find information concerning our Land Use Planning consultation process here:  
(<http://www.onr.org.uk/land-use-planning.htm>).

Kind regards,  
Vicki Enston  
Land Use Planning  
Office for Nuclear Regulation  
ONR-Land.Use-planning@onr.gov.uk

Carolanne Brown  
Energy Consents  
Directorate for Energy and Climate Change  
Scottish Government  
4th Floor  
5 Atlantic Quay  
150 Broomielaw  
Glasgow  
G2 8LU

14/07/2021

Dear Carolanne,

**ELECTRICITY ACT 1989 THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017**

**REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR LORG WIND FARM**

Many thanks for consulting RSPB Scotland on the above-referenced request for scoping opinion. Please find our comments set out in the letter below.

**Chapter 10 – Ornithology**

We agree with the methodologies and level of the ornithological surveys that have already been carried out as part of the assessment process.

We note that, in paragraph 10.2.5, it is stated that there were high levels of flight activity detected for both red kite (110 record totalling 117 individual flights) and peregrine (25 records totalling 27 individual flights), both of which are known to breed in the area. We recently consulted on other applications around the Lorg site, where cumulative impacts on these species were of significant concern. Therefore, as part of the EIA process for this site, we would expect to see a detailed analysis of said impacts, potentially including a population viability assessment.

We are also aware of potential schedule 1 species which may be nesting within the wind farm boundary, that may not have been detected by the desk study carried out in 2019. Therefore, we would recommend that a new data request is made to the Dumfries and Galloway Raptor Study Group.

If you have any questions regarding our comments, please don't hesitate to get in touch.

Yours sincerely,  
REDACTED

Ed Tooth  
Conservation Officer – Scottish Lowlands and Southern Uplands  
ed.tooth@rspb.org.uk

---

**From:** Planning SW <planning.sw@sepa.org.uk>  
**Sent:** 06 July 2021 08:07  
**To:** Econsents Admin; Brown C (Carolanne)  
**Subject:** Request for Scoping Opinion - Lorg Wind Farm - SEPA Response (Case Ref. 2033)

OFFICIAL – BUSINESS

Morning Carolanne,

Thank you for consulting us for a scoping opinion for Lorg Wind Farm. We have considered the scoping report and recommend the applicant refers to our online scoping advice for wind farms (available here:

<https://www.sepa.org.uk/media/144547/lups-l-14-windfarm-scoping-letter.pdf>) which sets out our requirements.

Although an indicative wind turbine layout is provided (Figure 1.2) no supporting survey information (e.g. for peat, GWDTE etc) is available at this stage. We understand from our previous involvement in this site that there are deep peat deposits, GWDTE and numerous watercourses on site. The site should be designed to avoid these features and incorporate appropriate buffer distances as set out in our scoping advice (e.g. 50m buffer to water features). We would be pleased to offer further pre application advice as draft assessments and proposals are made available.

If you have any questions please let us know.

Kind regards,  
REDA  
CTED

**Simon Watt**

**Senior Planning Officer**

**Scottish Environment Protection Agency | Strathearn House | Broxden Business Park | Lamberkine Drive | Perth PH1 1RX**

**e: [simon.watt@sepa.org.uk](mailto:simon.watt@sepa.org.uk)**

**w: <http://www.sepa.org.uk/environment/land/planning>**

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Registered office: Strathallan House, Castle Business Park, Stirling FK9 4TZ. Under the Regulation of Investigatory Powers Act 2000, the email system at SEPA may be subject to monitoring from time to time.



[Econsents\\_Admin@gov.scot](mailto:Econsents_Admin@gov.scot)

Carolanne Brown  
Energy Consents  
Directorate for Energy and Climate Change  
The Scottish Government  
4th Floor, 5 Atlantic Quay  
150 Broomielaw  
Glasgow  
G2 8LU

Our Ref: 04472  
21/07/2021

Dear Ms Brown

## **ELECTRICITY ACT 1989**

### **THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017**

#### **REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR LORG WIND FARM**

**ECU ref: ECU00003283**

Thank you for your email of 5 July 2021 seeking comments on the scoping report for the above proposal.

#### ScotWays records

The enclosed map shows that rights of way DS13/SCD101, DS14 and DS15 as recorded in the National Catalogue of Rights of Way (CROW) cross or are close to the application site as shown on Appendix A Figure 1.1 *Site Location* plan.

The enclosed map shows other path DN159 as recorded in the National Catalogue of Rights of Way (CROW) crosses or is close to the application site as shown on Appendix A Figure 1.1 *Site Location* plan. This route forms part of the Southern Upland Way (SUW). The applicant will be aware that this long distance route is used by walkers, runners and cyclists and is promoted by NatureScot (formerly Scottish Natural Heritage) as one of *Scotland's Great Trails*.

The enclosed map shows the Heritage Paths project promotes routes, *Sanquhar to Stroanpatrick Path* [HP368] and *Old Road from New Cumnock to Dalquhairn* [HP366] for their historic interest.

The Scottish Rights of Way and Access Society, 24 Annandale Street, Edinburgh EH7 4AN (Registered Office)  
0131 558 1222 info@scotways.com www.scotways.com

ScotWays is a registered trade mark of the Scottish Rights of Way and Access Society, a company limited by guarantee.  
Registered Company Number: SC024243. Scottish Charity Number: SC015460.

These old routes cross or are close to the application site as shown on Appendix A Figure 1.1 *Site Location* plan.

The enclosed map shows that our book *Scottish Hill Tracks* describes routes 83 *St John's Town of Dalry to Sanquhar* [HT84] and 84 *New Cumnock to St John's Town of Dalry by Glen Afton* [HT85] which cross or are close to the application site as shown on Appendix A Figure 1.1 *Site Location* plan.

In searching our records at this scoping stage, we have focussed solely on the immediate area of the proposed application. If required by the applicant to inform their Environmental Impact Assessment (EIA), maps of a wider search area are available from the Society, alongside a more detailed response.

#### Other Access to Land

You should be aware that other forms of public access to land may affect the proposed application site. More detail about these other types of access is set out in the enclosed Catalogue of Rights of Way Guidance Notes.

#### Wind Farms and public access

It is our understanding that there is very little guidance regarding the siting of turbines in relation to established paths and rights of way, so we draw your attention to the following:

#### ***Extract from the Welsh Assembly Government's Technical Advice Note on Renewable Energy (TAN 8)***

##### ***Proximity to Highways and Railways***

***2.25 It is advisable to set back all wind turbines a minimum distance, equivalent to the height of the blade tip, from the edge of any public highway (road or other public right of way) or railway line.***

ScotWays considers the above Note sets out a reasonable principle for a recommended minimum separation distance. There could also be site specific factors which would lead us to prefer a larger minimum separation distance; these could include the affected route being one of Scotland's Great Trails or it being known for equestrian use, for example. In this case and with regard to the SUW especially the Society would expect a larger minimum separation distance. It however appears from Appendix A Figure 1.2 *Site Boundary with Turbines* that the proposed turbines lie in close proximity to this route. ScotWays is likely to object to any proposal where the above principle is not followed, including where a micro-siting allowance could lead to turbine encroachment upon a route because it has been insufficiently buffered.

#### Recreational amenity

As well as direct impacts of development upon public access, ScotWays has an interest in impacts on recreational amenity, so this includes the impact of wind farm development on the wider landscape. We anticipate that the applicant will take into account both recreational amenity and landscape impacts in developing their proposals for this site. We will consider these issues further should this scoping stage lead to a planning application.

#### Cumulative Impact]

As ScotWays is aware of a number of wind turbine proposed in this general area, we are particularly concerned that the cumulative impact of these proposed developments is taken into account. As we are also aware of a large number of wind farm applications along the nationally important SUW the Society anticipates that the cumulative impact on the length of the SUW, as well as this individual section, will be taken into account.

Comment

Under section 3 of the Land Reform (Scotland) Act 2003, there is a duty upon landowners to use and manage land responsibly in a way which respects public access rights. Under section 14 of the same Act, access authorities have a duty to uphold access rights. Accordingly, we suggest that the applicant may wish to approach the relevant authority's access team for their input when drawing up their Access Management Plan for their proposed development.

I hope the information provided is useful to you. Please do not hesitate to contact us if you have any further queries.

Yours sincerely,

REDACTED

Lynda Grant  
Access Officer



## Catalogue of Rights of Way Scoping Comment Guidance Notes

These notes explain what is shown on the map(s) provided with scoping comments and provide information about the public right of access to land in Scotland. All maps are provided on a 1:50,000 scale base.

### What is the Catalogue of Rights of Way (CROW)?

CROW was created by ScotWays in the early 1990s with the help of Scottish Natural Heritage (now NatureScot) and local authorities and is an amalgamation of rights of way information from a number of different sources. Mapped at 1:50,000 scale, the catalogue does not include all rights of way – many of these are known only to local people and come to ScotWays' notice only when a problem arises.

CROW is continually updated to take account of new information as it comes to ScotWays' attention.

### Catalogue of Rights of Way maps

#### What is a Recorded Right of Way?

Any right of way that we record in the Catalogue of Rights of Way.

Where any Recorded Rights of Way pass through or close to the wind farm application site a map will be provided showing these.

#### What is an Other Route?

Any path that we record in the Catalogue of Rights of Way that does not appear to meet the criteria to be a right of way.

Where any Other Routes pass through or close to the wind farm application site a map will be provided showing these.

#### What is a Heritage Path?

These are historic routes that form part of the transport heritage of Scotland. They reflect our cultural and social development and include drove roads, military roads, Roman roads, pilgrim routes and trade routes.

These routes may or may not be rights of way, core paths or carry some other type of designation.

Find out more about the Heritage Paths project at <http://www.heritagepaths.co.uk>

Where any Heritage Paths pass through or close to the wind farm application site a map will be provided showing these.

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0131 558 1222 info@scotways.com www.scotways.com



### What is a Scottish Hill Track route?

First published in 1924, our book *Scottish Hill Tracks* is a record of the network of paths, old roads and rights of way which criss-cross Scotland's hill country, from the Borders to Caithness.

These publicised routes may or may not be rights of way, core paths or carry some other type of designation.

Copies of our book *Scottish Hill Tracks* can be purchased from the ScotWays webshop: <https://www.scotways.com/shop>

Where any *Scottish Hill Tracks* routes pass through or close to the wind farm application site a map will be provided showing these.

### Disclaimer

The routes shown on the CROW maps provided have been prepared from information contained in the records of ScotWays, local authorities, judicial and other records. The inclusion of a route in CROW is not in itself declarative of its legal status.

## **Other Public Access Information**

### Unrecorded Rights of Way

Our records only show the rights of way that we are aware of. Scots law does not require a right of way to be recorded in a specific document. Any route that meets the following criteria will be a right of way. This could include any paths, tracks or desire lines within your area of interest. A right of way:

1. Connects public places.
2. Has been used for at least 20 years.
3. Follows a more or less defined route.
4. Has been used by the public without judicial interruption or the landowner's permission.

### Core Paths

The Land Reform (Scotland) Act 2003 requires all access authorities to create a system of routes within their area. These are known as core paths and are recorded in the authority's core paths plan. It is anticipated that applicants will have consulted the relevant access authority's core paths plan to check whether any core paths cross or are close to the wind farm application site, and will also have consulted the authority's access team.

### The General Right of Access

Irrespective of the presence or absence of rights of way and core paths, the land in question may be subject to the access rights created by Section 1 of the Land Reform (Scotland) Act 2003. Unless the land falls into an excluded category in Section 6 of this Act then the public has a right of access to the land, and land owners/managers have a duty under the Act's Section 3 to consider this in any decisions made about the use/management of the land.

### Other Promoted Routes

There may be part of a promoted route running through or close to any wind farm application site. These will usually be obviously signed with signposts or waymarking and

may feature in guidebooks, leaflets, on local information boards and on websites. The two main types of nationally promoted routes are:

Scotland's Great Trails: <https://www.scotlandsgreattrails.com>

National Cycle Network: <https://www.sustrans.org.uk/map-ncn>

### Public and Private Roads

The Roads (Scotland) Act 1984 created the terms public road and private road. Public Roads are those roads which are on the List of Public Roads and, importantly, the roads authority is required to manage and maintain. Private Roads are those roads which are not on the List of Public Roads and thus there is no duty on the roads authority to manage or maintain them. There is a public right of passage over these roads and the owner(s) of a private road may not restrict or prevent the public's right of passage over the road.

If required, the local roads authority should be contacted by the applicant for more information on public and private roads that may cross or pass close to the application site.

### More Information on Outdoor Access Law

If you would like to know more about outdoor access law, why not get a copy of our book *The ScotWays Guide to the Law of Access to Land in Scotland* by Malcolm Combe? Visit our website, <https://www.scotways.com/shop> for more information.

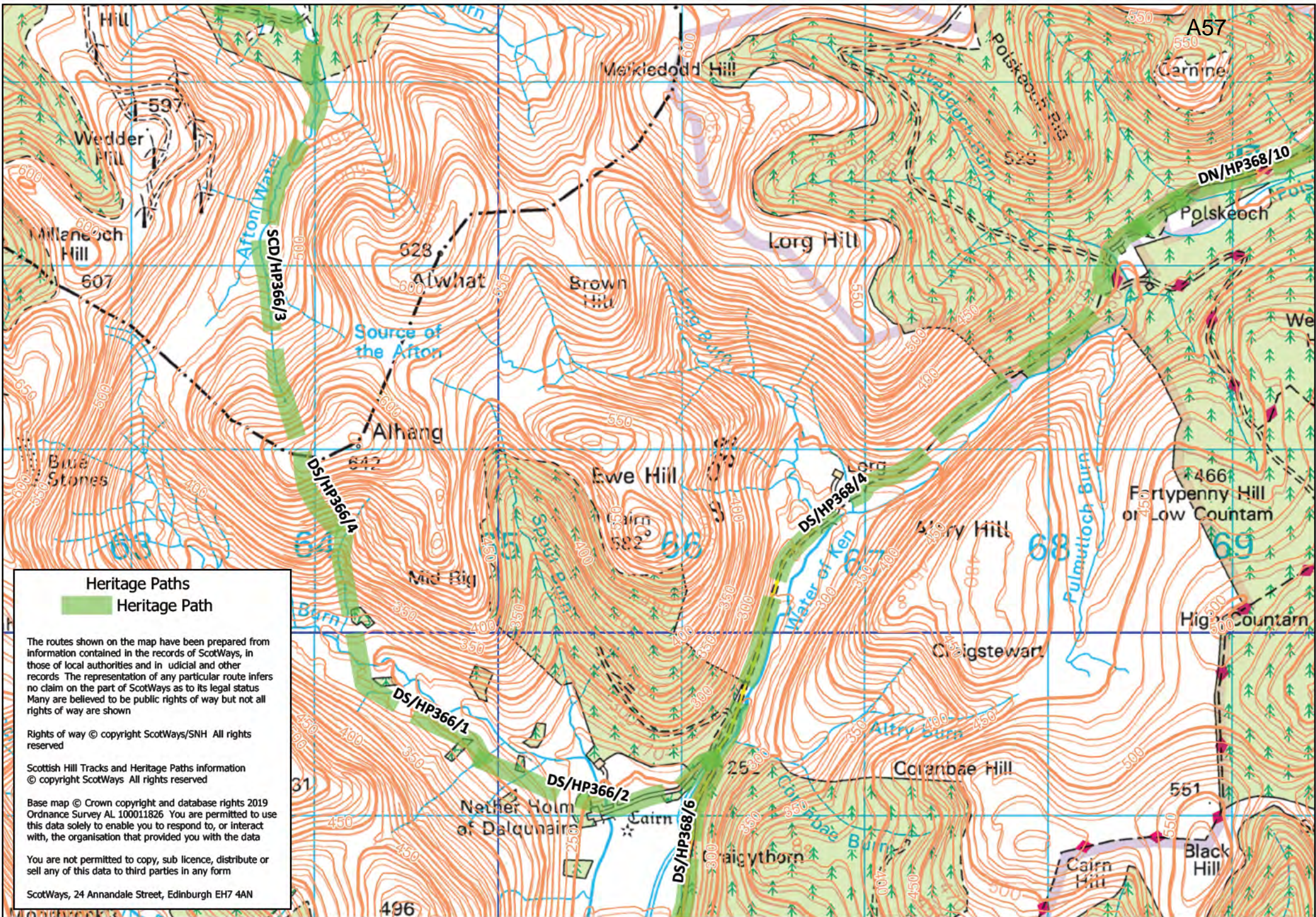
## **Development and Planning Applications**

When proposing to develop a site, it is advisable that the applicant reviews the current amount and type of public access across it and presents this as an access management plan as part of their application. This should include rights of way, core paths, other paths and tracks, and take account of how the statutory right of access currently affects the site.

The plan should then consider the effect that the proposed works, during construction and upon completion, would have on any patterns of public access identified. Any good practice guidance associated with the proposed type of development should be considered, e.g. for windfarms the Welsh Assembly Government's Technical Advice Note on Renewable Energy (TAN 8) Proximity to Highways and Railways paragraph 2.25 and the policies contained within any local statutory plans.

Depending upon the proposals there may be specific legal processes that are required to be followed to divert any paths or tracks either temporarily or permanently. These will be in addition to getting planning consent for the proposal. We recommend that applicants contact the access team at the relevant access authority for advice in this regard.

*Published October 2019, updated March 2021*



**Heritage Paths**

Heritage Path

The routes shown on the map have been prepared from information contained in the records of ScotWays, in those of local authorities and in judicial and other records. The representation of any particular route infers no claim on the part of ScotWays as to its legal status. Many are believed to be public rights of way but not all rights of way are shown.

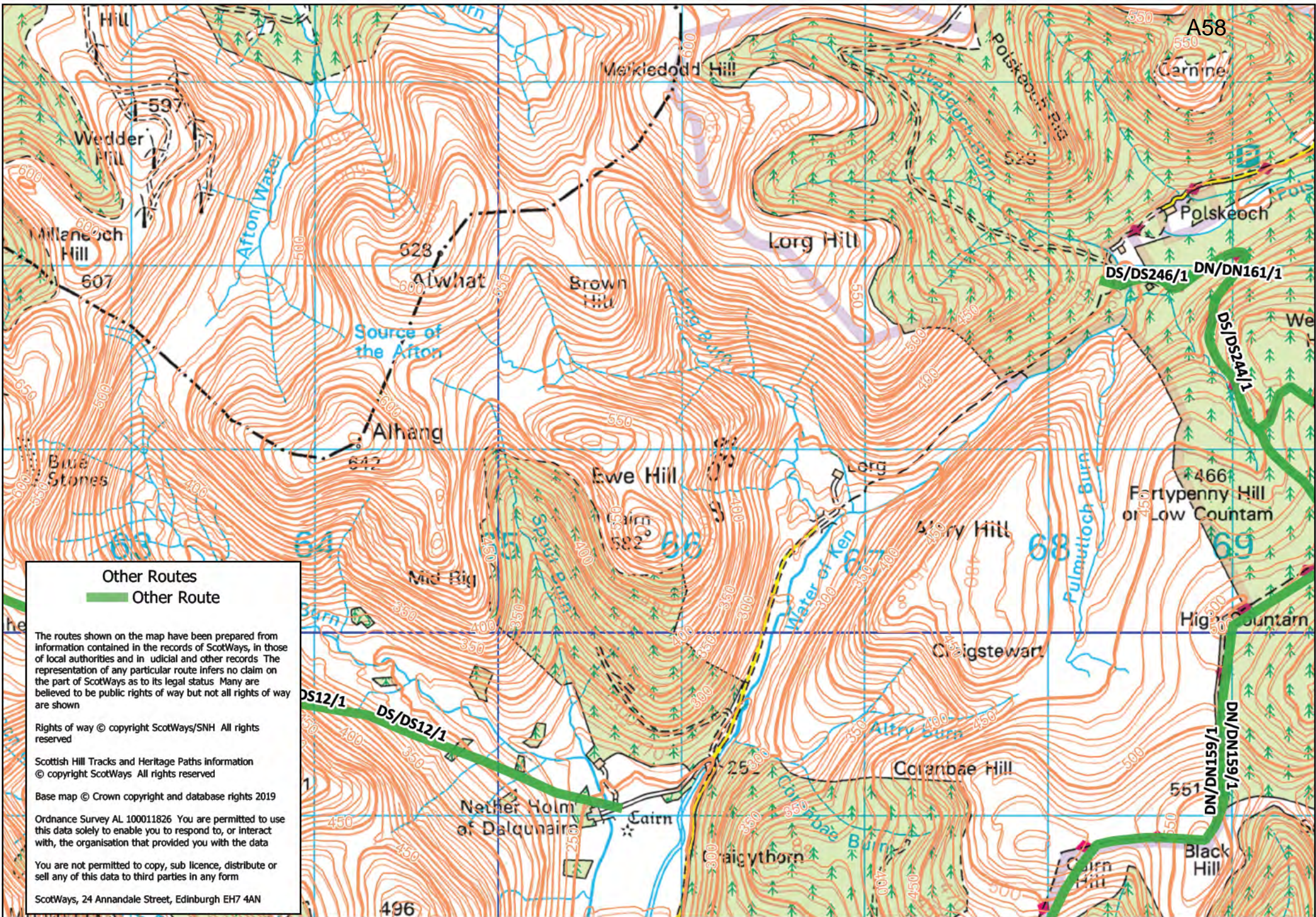
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**Other Routes**  
— Other Route

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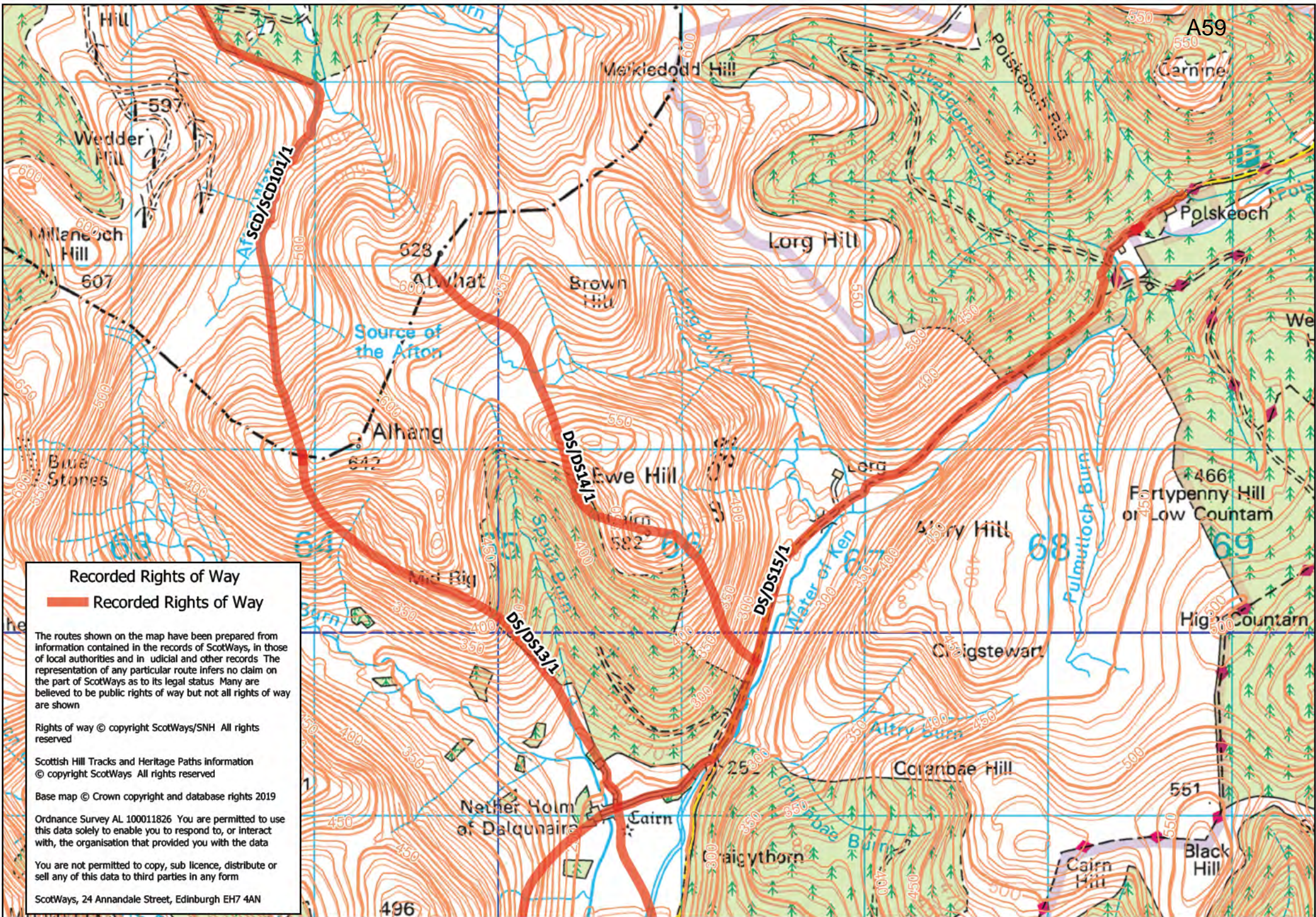
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**Recorded Rights of Way**

— Recorded Rights of Way

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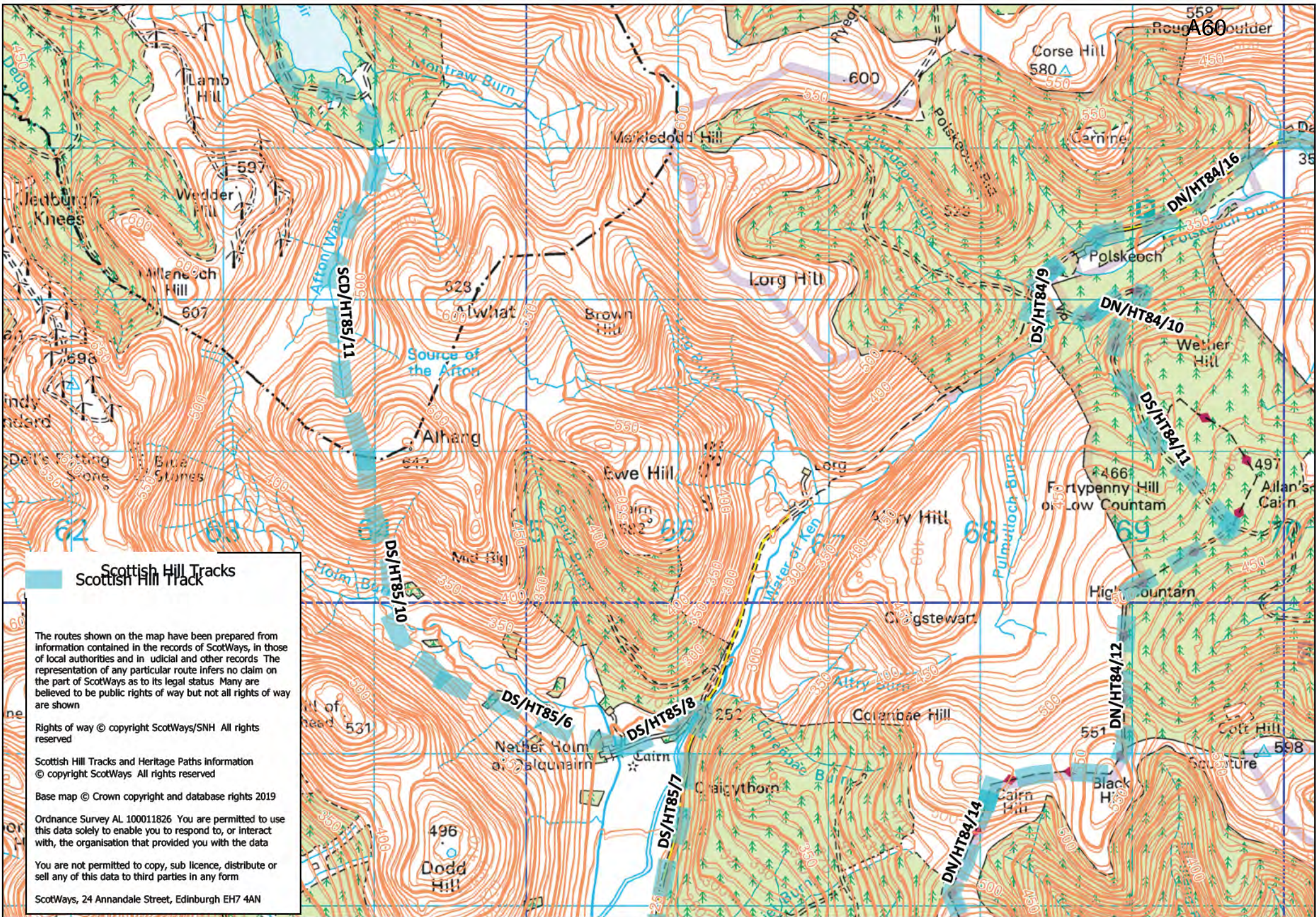
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**Scottish Hill Tracks**  
 Scottish Hill Track

The routes shown on the map have been prepared from information contained in the records of ScotWays, in those of local authorities and in judicial and other records. The representation of any particular route infers no claim on the part of ScotWays as to its legal status. Many are believed to be public rights of way but not all rights of way are shown.

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ScotWays, 24 Annandale Street, Edinburgh EH7 4AN

Monday, 12 July 2021



Local Planner  
Energy Consents Unit  
5 Atlantic Quay  
Glasgow  
G2 8LU

Development Operations  
The Bridge  
Buchanan Gate Business Park  
Cumbernauld Road  
Steps  
Glasgow  
G33 6FB

Development Operations  
Freephone Number - 0800 3890379  
E-Mail - [DevelopmentOperations@scottishwater.co.uk](mailto:DevelopmentOperations@scottishwater.co.uk)  
[www.scottishwater.co.uk](http://www.scottishwater.co.uk)

Dear Sir/Madam

**SITE: Lorg Wind Farm, Lorg Wind Farm, DG3 4NN**  
**PLANNING REF: ECU00003283**  
**OUR REF: DSCAS-0043738-FW2**  
**PROPOSAL: Wind Farm (Generating station of >50 < 100 MW Capacity )**

**Please quote our reference in all future correspondence**

### Audit of Proposal

Scottish Water has no objection to this planning application; however, the applicant should be aware that this does not confirm that the proposed development can currently be serviced and would advise the following:

### Drinking Water Protected Areas

A review of our records indicates that the site boundary falls within the drinking water catchments within which Scottish Water abstractions from Afton reservoir and Carsfad loch are located. Afton supplies Afton Water Treatment Works (WTW) and Carsfad supplies Lochinvar WTW. Scottish Water abstractions are designated as Drinking Water Protected Areas (DWPA) under Article 7 of the Water Framework Directive. 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 we should be notified immediately using the Customer Helpline number 0800 0778 77.

The activity is sufficient distance from the intakes within these catchments that it is likely to be low risk, however care should be taken and water quality protection measures must be implemented.

Scottish Water have produced a list of precautions for a range of activities. This details protection measures to be taken within a DWPA, the wider drinking water catchment and if there are assets in the area. Please note that site specific risks and mitigation measures will require to be assessed and implemented. These documents and other supporting information



can be found on the activities within our catchments page of our website at [www.scottishwater.co.uk/slm](http://www.scottishwater.co.uk/slm).

We welcome that reference has been made to the Scottish Water response to the previous consultation.

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.

We would request further involvement at the more detailed design stages, to determine the most appropriate proposals and mitigation within the catchment to protect water quality and quantity.

We would also like to take the opportunity, to request that 3 months in advance of any works commencing on site, Scottish Water is notified at [protectdwsources@scottishwater.co.uk](mailto:protectdwsources@scottishwater.co.uk). This will enable us to be aware of activities in the catchment and to determine if a site meeting would be appropriate and beneficial.

---

## **Surface Water**

For reasons of sustainability and to protect our customers from potential future sewer flooding, Scottish Water will not accept any surface water connections into our combined sewer system.

There may be limited exceptional circumstances where we would allow such a connection for brownfield sites only, however this will require significant justification from the customer taking account of various factors including legal, physical, and technical challenges.

In order to avoid costs and delays where a surface water discharge to our combined sewer system is anticipated, the developer should contact Scottish Water at the earliest opportunity with strong evidence to support the intended drainage plan prior to making a connection request. We will assess this evidence in a robust manner and provide a decision that reflects the best option from environmental and customer perspectives.

## **General notes:**

- ▶ Scottish Water asset plans can be obtained from our appointed asset plan providers:
  - ▶ Site Investigation Services (UK) Ltd
  - ▶ Tel: 0333 123 1223
  - ▶ Email: [sw@sisplan.co.uk](mailto:sw@sisplan.co.uk)
  - ▶ [www.sisplan.co.uk](http://www.sisplan.co.uk)
  
- ▶ Scottish Water's current minimum level of service for water pressure is 1.0 bar or 10m head at the customer's boundary internal outlet. Any property which cannot be adequately serviced from the available pressure may require private pumping arrangements to be installed, subject to compliance with Water Byelaws. If the developer wishes to enquire about Scottish Water's procedure for checking the water pressure in the area, then they should write to the Customer Connections department at the above address.



- ▶ If the connection to the public sewer and/or water main requires to be laid through land out-with public ownership, the developer must provide evidence of formal approval from the affected landowner(s) by way of a deed of servitude.
  - ▶ Scottish Water may only vest new water or waste water infrastructure which is to be laid through land out with public ownership where a Deed of Servitude has been obtained in our favour by the developer.
  - ▶ The developer should also be aware that Scottish Water requires land title to the area of land where a pumping station and/or SUDS proposed to vest in Scottish Water is constructed.
  - ▶ Please find information on how to submit application to Scottish Water at [our Customer Portal](#).
- 

### Next Steps:

#### ▶ **All Proposed Developments**

All proposed developments require to submit a Pre-Development Enquiry (PDE) Form to be submitted directly to Scottish Water via [our Customer Portal](#) prior to any formal Technical Application being submitted. This will allow us to fully appraise the proposals.

Where it is confirmed through the PDE process that mitigation works are necessary to support a development, the cost of these works is to be met by the developer, which Scottish Water can contribute towards through Reasonable Cost Contribution regulations.

#### ▶ **Non Domestic/Commercial Property:**

Since the introduction of the Water Services (Scotland) Act 2005 in April 2008 the water industry in Scotland has opened to market competition for non-domestic customers. All Non-domestic Household customers now require a Licensed Provider to act on their behalf for new water and waste water connections. Further details can be obtained at [www.scotlandontap.gov.uk](http://www.scotlandontap.gov.uk)

#### ▶ **Trade Effluent Discharge from Non Dom Property:**

- ▶ Certain discharges from non-domestic premises may constitute a trade effluent in terms of the Sewerage (Scotland) Act 1968. Trade effluent arises from activities including; manufacturing, production and engineering; vehicle, plant and equipment washing, waste and leachate management. It covers both large and small premises, including activities such as car washing and launderettes. Activities not covered include hotels, caravan sites or restaurants.
- ▶ If you are in any doubt as to whether the discharge from your premises is likely to be trade effluent, please contact us on 0800 778 0778 or email [TEQ@scottishwater.co.uk](mailto:TEQ@scottishwater.co.uk) using the subject "Is this Trade Effluent?".

Discharges that are deemed to be trade effluent need to apply separately for permission to discharge to the sewerage system. The forms and application guidance notes can be found [here](#).

- ▶ Trade effluent must never be discharged into surface water drainage systems as these are solely for draining rainfall run off.
- ▶ For food services establishments, Scottish Water recommends a suitably sized grease trap is fitted within the food preparation areas, so the development complies with Standard 3.7 a) of the Building Standards Technical Handbook and for best management and housekeeping practices to be followed which prevent food waste, fat oil and grease from being disposed into sinks and drains.
- ▶ The Waste (Scotland) Regulations which require all non-rural food businesses, producing more than 50kg of food waste per week, to segregate that waste for separate collection. The regulations also ban the use of food waste disposal units that dispose of food waste to the public sewer. Further information can be found at [www.resourceefficientscotland.com](http://www.resourceefficientscotland.com)

I trust the above is acceptable however if you require any further information regarding this matter please contact me on **0800 389 0379** or via the e-mail address below or at [planningconsultations@scottishwater.co.uk](mailto:planningconsultations@scottishwater.co.uk).

Yours sincerely,

**Pamela Strachan**

Development Operations Analyst

Tel: 0800 389 0379

[developmentoperations@scottishwater.co.uk](mailto:developmentoperations@scottishwater.co.uk)

### **Scottish Water Disclaimer:**

*"It is important to note that the information on any such plan provided on Scottish Water's infrastructure, is for indicative purposes only and its accuracy cannot be relied upon. When the exact location and the nature of the infrastructure on the plan is a material requirement then you should undertake an appropriate site investigation to confirm its actual position in the ground and to determine if it is suitable for its intended purpose. By using the plan you agree that Scottish Water will not be liable for any loss, damage or costs caused by relying upon it or from carrying out any such site investigation."*

Scottish Wild Land Group - Consultation Response

---

**From:** beryl leatherland  
**Sent:** 23 July 2021 22:03  
**To:** Brown C (Carolanne)  
**Subject:** Re: FW: Request for Scoping Opinion - Lorg Wind Farm

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hello

I confirm that SWLG has no comments to submit for this scoping opinion.

Beryl Leatherland

## The Royal Burgh of Sanquhar Community Council - Consultation Response

---

**From:** sanquhar.cc REDACTED  
**Sent:** 21 July 2021 19:00  
**To:** Brown C (Carolanne)  
**Subject:** Re: FW: Request for Scoping Opinion - Lorg Wind Farm

Good evening Carolanne, The Royal Burgh of Sanquhar Community Council have no comments to make on the Scoping opinion for Lorg Wind Farm.

Mary Leighton  
Secretary

Carolanne Brown  
Energy Consents Unit  
The Scottish Government  
5 Atlantic Quay  
150 Broomielaw  
Glasgow  
G2 8LU

Your ref:  
ECU00003283

Our ref:  
GB01T19K05

Date:  
21/07/2021

[econsents\\_admin@gov.scot](mailto:econsents_admin@gov.scot)

Dear Sirs,

## **ELECTRICITY ACT 1989**

### **THE ELECTRICITY (APPLICATIONS FOR CONSENT) REGULATIONS 2017**

#### **REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR LORG WIND FARM**

With reference to your recent correspondence on the above development, we acknowledge receipt of the Scoping Report (SR) prepared by Wood in support of the above development.

This information has been passed to SYSTRA Limited for review in their capacity as Term Consultant to Transport Scotland – Roads Directorate. Based on the review undertaken, Transport Scotland would provide the following comments.

#### **Proposed Development**

We understand that planning consent was granted under the Town and Country Planning (Scotland) Act 1997 to develop a nine-turbine wind farm at Lorg in Dumfries and Galloway in 2019. The Applicant is now proposing to increase the development to 12 wind turbines with a maximum blade to tip height of 200m. The site is located approximately 12km southwest of Sanquhar and the A76(T). The A75(T) is located approximately 35km to the southeast.

#### **Assessment of Environmental Impacts**

Chapter 12 of the SR presents the proposed methodology for the assessment of the potential impact of Traffic and Transport associated with the construction of the wind farm. This states that the Institute of Environmental Management and Assessment (IEMA) Guidelines for the Environmental Assessment of Road Traffic are to be used as a screening process for the assessment. The SR also indicates that potential environmental impacts such as driver delay, pedestrian amenity, severance, safety etc will be considered and assessed where appropriate (i.e. where IEMA Guidelines for further assessment are breached). These specify that road links should be taken forward for assessment if:

- Traffic flows will increase by more than 30%, or
- The number of HGVs will increase by more than 30%, or
- Traffic flows will increase by 10% or more in sensitive areas.

Transport Scotland would specify that the potential impacts on the trunk road network should be assessed. It is noted that the proposed study area will include both the A76(T) and the A75(T), which we consider to be appropriate.

We also note that baseline traffic will be extracted from Department for Transport (DfT) traffic counts, or from Automatic Traffic Counts if no DfT data is available. Transport Scotland is in agreement with this approach.

We note that it is assumed that a significant proportion of the required construction aggregate could be won from on-site borrow pits, however, the forthcoming assessment will be based upon a worst-case assumption that 100% of all aggregate required will be imported from off-site from either Tincornhill Quarry or Tongland Quarry.

It is noted that any impacts associated with both the operational and decommissioning phases of the development are to be scoped out of the Environmental Impact Assessment Report (EIAR). We would consider this to be acceptable in this instance.

#### **Abnormal Indivisible Loads**

It is anticipated that the Abnormal Indivisible Loads (AIL) will travel from the Port of Ayr via A79 – A719 – A77(T) (northbound) – A76(T) (southbound) – B741 – Afton Road.

Transport Scotland will require to be satisfied that the size of turbines proposed can negotiate the selected route and that their transportation will not have any detrimental effect on structures within the trunk road route path.

A full Abnormal Loads Assessment report should be provided with the EIAR that identifies key pinch points on the trunk road network. Swept path analysis should be undertaken and details provided with regard to any required changes to street furniture or structures along the route.

I trust that the above is satisfactory and should you wish to discuss any issues raised in greater detail, please do not hesitate to contact me or alternatively, Alan DeVenny at SYSTRA's Glasgow Office on REDACTED .

Yours faithfully  
REDACTED

**John McDonald**

**Transport Scotland  
Roads Directorate**

## Tynron Community Council

### Response to Lorg Wind Farm ECU00003283 Scoping Documents

Tynron Community Council first received notification of this application on Monday 5th July, with a request that responses should be received by the ECU by Monday 26th July. The scoping document was submitted for opinion on 28 May 2021, 5 weeks prior to Tynron Community Council receiving notification. We would like to thank the ECU for allowing us an extension to that deadline, but as the Planning Authority's deadline date is the 26 July 2021 and ECU aim to issue the scoping opinion 3 weeks after receiving the Planning Authority's response it would appear better for all parties to submit a limited response to meet the 26<sup>th</sup> July deadline.

Due to our existing commitments to community business, other wind farm responses, and the limitations on community meetings due to the Covid pandemic, Tynron Community Council cannot in this short time make a valid statement about this proposal based on the views of our community members. However, Tynron Community Council would like to draw your attention to the fact that Lorg wind farm, comprising 12 turbines up to 200 metres, if consented, would form a continuous development of wind farms of almost 80 turbines up to 200 metres and higher in this area should Sanquhar II and Eucharhead wind farms be consented.

On 31 May 2020 following a community consultation Tynron Community Council objected to Lorg wind farm (Dumfries and Galloway Council Planning Application 19/1293/FUL). This was a previous, slightly smaller, iteration of application ECU00003283, comprising 6 x 130 metres and 3 x 149.9 metre turbines in approximately the same positions on Altry Hill and immediate surroundings as Turbines 1-10 in application ECU00003283. This application (19/1293/FUL) was subsequently withdrawn. For information I have included relevant extracts from that objection below, which are still pertinent to ECU00003283 and highlight our concerns about Lorg windfarm.

***Extracts from Tynron Community Council's objection to Dumfries and Galloway Council to the proposed Lorg wind farm, planning application number 19/1923/FUL, 31 May 2020***

***Reasons for objection:*** Lorg windfarm will exacerbate the increasingly overwhelming cumulative visual impact of wind farms in an area renowned for its wild and remote beauty. It will have a significant impact on a much wider range and number of visual receptors, with a resulting increase in operational noise and infrasound on properties close to the wind farm. It therefore does not accord with D&G Policy IN1.

The visual impact of Lorg wind farm will adversely impact on the character of the Thornhill Uplands Regional Scenic Area, particularly in combination with the existing windfarms of Whiteside and Sanquhar I, the [in construction] Twentysilling Hill, and the proposed Sanquhar II and Eucharhead windfarms.

Lorg wind farm would be within the UNESCO internationally designated Galloway and Southern Ayrshire Biosphere; the D&G Local Development Plan (October 2019) states that this requires developments to

'not adversely impact on unique tourism assets'. Outdoor recreation and landscapes underpin much of the local tourism industry, including B&B, holiday lets, and walking and other outdoor activities. Lorg wind farm is situated in an area bounded by several designated Main Tourist Routes (Map 15, D&G Local Development Plan2). It will have unacceptable impacts (from turbine proximity, operational noise, visual impact, operational and constructional disturbance, access limitations during construction and maintenance) on local tourism attractions including the Southern Upland Way, local Heritage Paths (the Old Road from New Cumnock to Dalquhairn and the Sanquhar to Stroanpatrick Path), Polskeoch/Chalk Memorial Bothy, the network of core paths, and the Striding Arches. This is against the D&G Policy IN1.

Lorg wind farm development appears to be set within/against an area designated as an 'Area of Significant Protection' (Map 8, Spatial Framework, D&G Local development Plan October 2019), therefore Lorg wind farm is not 'located, sited and designed appropriately' in accordance with D&G Policy IN2.

Lorg windfarm would have a profound impact on the local cultural heritage, with its proximity of turbines to Allan's Cairn, the building of the wind farm and infrastructure on and around Altry Hill, Tynron Doon, and the regional associations with Robbie Burns. Lorg windfarm will be sited on an area of extensive class I peat deposits, the destruction of which goes against the Scottish Government's stated aims of peatland restoration and conservation, to help sequester atmospheric GHGs to combat climate change (The Scottish Government's Climate Change Plan), as well as D&G's Policy NE15, Protection and Restoration of Peat Deposits as Carbon Sinks. The peat extraction, underground cabling and hard standing, ancilliary buildings and road construction and usage all contribute to the insidious drainage and drying out of peatlands, changing its structure and GHG absorbing capacity as well as destroying fragile ecosystems.

The area has recorded populations of skylark, curlew, black grouse and many more protected species which will be at risk from habitat destruction, fragmentation and disturbance and resultant profound impacts on our regional, and national, biodiversity by destroying feeding and breeding grounds.

Yours sincerely

Susan Hall, Secretary, Tynron Community Council

REDACTED



## **Marine Scotland Science advice on freshwater and diadromous fish and fisheries in relation to onshore wind farm developments.**

**July 2020**

Marine Scotland Science (MSS) provides internal, non-statutory, advice in relation to freshwater and diadromous fish and fisheries to the Scottish Government's Energy Consents Unit (ECU) for onshore wind farm developments in Scotland.

Atlantic salmon (*Salmo salar*), sea trout and brown trout (*Salmo trutta*) are of high economic value and conservation interest in Scotland and for which MSS has in-house expertise. Onshore wind farms are often located in upland areas where salmon and trout spawning and rearing grounds may also be found. MSS aims, through our provision of advice to ECU, to ensure that the construction and operation of these onshore developments do not have a detrimental impact on the freshwater life stages of these fish populations.

The Electricity Works (Environmental Impact Assessment) (EIA) (Scotland) Regulations (2017) state that the EIA must assess the direct and indirect significant effects of the proposed development on water and biodiversity, and in particular species (such as Atlantic salmon) and habitats protected under the EU Habitats Directive. Salmon and trout are listed as priority species of high conservation interest in the Scottish Biodiversity Index and support valuable recreational fisheries.

A good working relationship has been developed over the years between ECU and MSS, which ensures that these fish species are considered by ECU during all stages of the application process of onshore wind farm developments and are similarly considered during the construction and operation of future onshore wind farms. It is important that matters relating to freshwater and diadromous fish and fisheries, particularly salmon and trout, continue to be considered during the construction and operation of future onshore wind farms.

In the current document, MSS sets out a revised, more efficient approach to the provision of our advice, which utilises our generic scoping and monitoring programme guidelines (<https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren>). This standing advice provides regulators (e.g. ECU, local planning authorities), developers and consultants with the information required at all stages of the application process for onshore wind farm developments, such that matters relating to freshwater and diadromous fish and fisheries are addressed in the same rigorous manner as is currently being carried out and continue to be fully in line with EIA regulations. At the request of ECU, MSS will still be able to provide further and/or bespoke advice relevant to freshwater and diadromous fish and fisheries e.g. site specific advice, at any stage of the application process for a proposed development, particularly where a development may be considered sensitive or contentious in nature.

MSS will continue undertaking research, identifying additional research requirements, and keep up to date with the latest published knowledge relating to the impacts of onshore wind farms on freshwater and diadromous fish populations. This

will be used to ensure that our guidelines and standing advice are based on the best available evidence and also to continue the publication of the relevant findings and knowledge to all stakeholders including regulators, developers and consultants.

#### MSS provision of advice to ECU

- MSS should not be asked for advice on pre application and application consultations (including screening, scoping, gate checks and EIA applications). Instead, the MSS scoping guidelines and standing advice (outlined below) should be provided to the developer as they set out what information should be included in the EIA report;
- if new issues arise which are not dealt with in our guidance or in our previous responses relating to respective developments, MSS can be asked to provide advice in relation to proposed mitigation measures and monitoring programmes which should be outlined in the EIA Report (further details below);
- if new issues arise which are not dealt with in our guidance or in our previous responses, MSS can be asked to provide advice on suitable wording, within a planning condition, to secure proposed monitoring programmes, should the development be granted consent;
- MSS cannot provide advice to developers or consultants, our advice is to ECU and/or other regulatory bodies.
- if ECU has identified specific issues during any part of the application process that the standing advice does not address, MSS should be contacted.

### **MSS Standing Advice for each stage of the EIA process**

#### Scoping

MSS issued generic scoping guidelines

(<https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren>) which outline how fish populations can be impacted during the construction, operation and decommissioning of a wind farm development and informs developers as to what should be considered, in relation to freshwater and diadromous fish and fisheries, during the EIA process.

In addition to identifying the main watercourses and waterbodies within and downstream of the proposed development area, developers should identify and consider, at this early stage, any areas of Special Areas of Conservation where fish are a qualifying feature and proposed felling operations particularly in acid sensitive areas.

If a developer identifies new issues or has a technical query in respect of MSS generic scoping guidelines then ECU should be informed who will then co-ordinate a response from MSS.

### Gate check

The detail within the generic scoping guidelines already provides sufficient information relating to water quality and salmon and trout populations for developers at this stage of the application.

Developers will be required to provide a gate check checklist (annex 1) in advance of their application submission which should signpost ECU to where all matters relevant to freshwater and diadromous fish and fisheries have been presented in the EIA report. Where matters have not been addressed or a different approach, to that specified in the advice, has been adopted the developer will be required to set out why.

### EIA Report

MSS will focus on those developments which may be more sensitive and/or where there are known existing pressures on fish populations (<https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/fishreform/licence/status/Pressures>). The generic scoping guidelines should ensure that the developer has addressed all matters relevant to freshwater and diadromous fish and fisheries and presented them in the appropriate chapters of the EIA report. Use of the gate check checklist should ensure that the EIA report contains the required information; the absence of such information may necessitate requesting additional information which may delay the process:

Developers should specifically discuss and assess potential impacts and appropriate mitigation measures associated with the following:

- any designated area, for which fish is a qualifying feature, within and/or downstream of the proposed development area;
- the presence of a large density of watercourses;
- the presence of large areas of deep peat deposits;
- known acidification problems and/or other existing pressures on fish populations in the area; and
- proposed felling operations.

### Post-Consent Monitoring

MSS recommends that a water quality and fish population monitoring programme is carried out to ensure that the proposed mitigation measures are effective. A robust, strategically designed and site specific monitoring programme conducted before, during and after construction can help to identify any changes, should they occur, and assist in implementing rapid remediation before long term ecological impacts occur.

MSS has published guidance on survey/monitoring programmes associated with onshore wind farm developments (<https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren>) which developers should follow when drawing up survey and/or monitoring programmes.

If a developer considers that such a monitoring programme is not required then a clear justification should be provided.

### Planning Conditions

MSS advises that planning conditions are drawn up to ensure appropriate provision for mitigation measures and monitoring programmes, should the development be given consent. We recommend, where required, that a Water Quality Monitoring Programme, Fisheries Monitoring Programme and the appointment of an Ecological Clerk of Works, specifically in overseeing the above monitoring programmes, is outlined within these conditions and that MSS is consulted on these programmes.

Wording suggested by MSS in relation to water quality, fish populations and fisheries for incorporation into planning consents:

1. No development shall commence unless a Water Quality and Fish Monitoring Plan (WQFMP) has been submitted to and approved in writing by the Planning Authority in consultation with Marine Scotland Science and any such other advisors or organisations.
2. The WQFMP must take account of the Scottish Government's Marine Scotland Science's guidelines and standing advice and shall include:
  - a. water quality sampling should be carried out at least 12 months prior to construction commencing, during construction and for at least 12 months after construction is complete. The water quality monitoring plan should include key hydrochemical parameters, turbidity, and flow data, the identification of sampling locations (including control sites), frequency of sampling, sampling methodology, data analysis and reporting etc.;
  - b. the fish monitoring plan should include fully quantitative electrofishing surveys at sites potentially impacted and at control sites for at least 12 months before construction commences, during construction and for at least 12 months after construction is completed to detect any changes in fish populations; and
  - c. appropriate site specific mitigation measures detailed in the Environmental Impact Assessment and in agreement with the Planning Authority and Marine Scotland Science.
3. Thereafter, the WQFMP shall be implemented within the timescales set out to the satisfaction of the Planning Authority in consultation with Marine Scotland Science and the results of such monitoring shall be submitted to the Planning Authority on a 6 monthly basis or on request.

**Reason:** To ensure no deterioration of water quality and to protect fish populations within and downstream of the development area.

### Sources of further information

Scottish Natural Heritage (SNH) guidance on wind farm developments - <https://www.nature.scot/professional-advice/planning-and-development/advice-planners-and-developers/renewable-energy-development/onshore-wind-energy/advice-wind-farm>

Scottish Environment Protection Agency (SEPA) guidance on wind farm developments – <https://www.sepa.org.uk/environment/energy/renewable/#wind>

A joint publication by Scottish Renewables, SNH, SEPA, Forestry Commission Scotland, Historic Environment Scotland, MSS and Association of Environmental and Ecological Clerks of Works (2019) Good Practice during Wind Farm Construction - <https://www.nature.scot/guidance-good-practice-during-wind-farm-construction>.

## Marine Scotland Science advice on freshwater and diadromous fish and fisheries in relation to onshore wind farm developments.

July 2020

Annex 1

### MSS – EIA Checklist

The generic scoping guidelines should ensure that all matters relevant to freshwater and diadromous fish and fisheries have been addressed and presented in the appropriate chapters of the EIA report. Use of the checklist below should ensure that the EIA report contains the following information; the absence of such information **may necessitate requesting additional information** which could delay the process:

MSS Standard EIA Report Requirements	Provided in application YES/NO	If YES – please signpost to relevant chapter of EIA Report	If not provided or provided different to MSS advice, please set out reasons.
1. A map outlining the proposed development area and the proposed location of: <ul style="list-style-type: none"> <li>○ the turbines,</li> <li>○ associated crane hard standing areas,</li> <li>○ borrow pits,</li> <li>○ permanent meteorological masts,</li> <li>○ access tracks including watercourse crossings,</li> <li>○ all buildings including substation, battery storage;</li> </ul>			

<ul style="list-style-type: none"> <li>○ permanent and temporary construction compounds;</li> <li>○ all watercourses; and</li> <li>○ contour lines;</li> </ul>			
<p>2. A description and results of the site characterisation surveys for fish (including fully quantitative electrofishing surveys) and water quality including the location of the electrofishing and fish habitat survey sites and water quality sampling sites on the map outlining the proposed turbines and associated infrastructure;</p>			
<p>3. An outline of the potential impacts on fish populations and water quality within and downstream of the proposed development area;</p>			
<p>4. Any potential cumulative impacts on the water quality and fish populations associated with adjacent (operational and consented) developments including wind farms, hydro schemes, aquaculture and mining;</p>			
<p>5. Any proposed site specific mitigation measures as outlined in MSS generic scoping guidelines and the joint publication “Good Practice</p>			

during Wind Farm Construction” ( <a href="https://www.nature.scot/guidance-good-practice-during-wind-farm-construction">https://www.nature.scot/guidance-good-practice-during-wind-farm-construction</a> );			
6. Full details of proposed monitoring programmes using guidelines issued by MSS and accompanied by a map outlining the proposed sampling and control sites in addition to the location of all turbines and associated infrastructure			
7. A decommissioning and restoration plan outlining proposed mitigation/monitoring for water quality and fish populations.			

Developers should specifically discuss and assess potential impacts and appropriate mitigation measures associated with the following:	Provided in application YES/NO	If YES – please signpost to relevant chapter of EIA Report	If not provided or provided different to MSS advice, please set out reasons.
1. Any designated area, for which fish is a qualifying feature, within and/or downstream of the proposed development area;			
2. The presence of a large density of watercourses;			
3. The presence of large areas of deep peat deposits;			



4. Known acidification problems and/or other existing pressures on fish populations in the area; and			
5. Proposed felling operations.			