Balliemeanoch Pumped Storage Hydro

Environmental Impact Assessment Report

Volume 5: Appendices
Appendix 4.2: Balliemeanoch Pumped Storage Hydro Scoping Opinion

ILI (Borders PSH) Ltd

July 2024

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Energy Consents Unit

Scoping Opinion On Behalf Of Scottish Ministers Under The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017

Balliemeanoch Pumped Storage Hydro Scheme
ILI (Borders PSH) Ltd

3rd March 2023

CONTENTS

1. Introduction

1.1 This scoping opinion is issued by the Scottish Government Energy Consents Unit (ECU) on behalf of the Scottish Ministers in response to a request by AECOM acting as agent on behalf of ILI (Borders PSH) Ltd, dated 15 June 2022 for a scoping opinion under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 pursuant to a forthcoming application under section 36 of the Electricity Act 1989 ('the 1989 Act') for construction and operation of the proposed Balliemeanoch Pumped Storage Hydro Scheme ("the proposed development"). The proposal consists of a pumped storage scheme, ancillary development including access tracks and compounds, and a pier structure extending into Loch Fyne ('the Marine Facility') which will enable large deliveries to site. The request was accompanied by a scoping report.

1.2 The Marine Facility may require a marine licence under the Marine (Scotland) Act 2010. Marine Scotland – Licensing Operations Team ("MS-LOT"), acting on behalf of the Scottish Ministers, advised the Energy Consents Unit on marine stakeholders to be consulted during the Environmental Impact Assessment ("EIA") scoping process to ensure marine receptors are considered in the EIA report.

1.3 The proposed development would be located approximately 4.4 km to the south of Portsonachan and 9 km northwest of Inveraray.

1.4 The proposed development site is generally characterised by upland moorland plateau grazing land. The headpond (upper reservoir) location at Lochan Airigh sits approximately 360 m above ordnance datum (AOD) and 3 km to the east of the village of Balliemeanoch. The Marine Facility is located at Loch Fyne south of Inveraray off the A83.

1.5 The proposed development is predominantly located within the catchment of the Allt Beochlich watercourse. The catchment consists of a number of small streams which ultimately flow into Loch Awe, these originate from smaller Lochs (Airigh, Dubh and Romach). Within the wider area, Glen Etive and Glen Fyne Special Protected Area (SPA) is located approximately 5 km to the east of the proposed headpond and is designated for breeding golden eagle.

1.6 Site access is proposed off the A819 which links the strategic trunk roads A85 to the north at Dalmally and A83 to the south at Inveraray. It is anticipated the general construction access will come from the north and south along the A819. Construction access from the south will bypass Inveraray via a section of unclassified existing track (to be upgraded) north of Inveraray Castle which will connect the A83 to the A819.

1.7 The main components of the pumped storage hydro scheme are summarised below:

Components	Details (approximate parameters)
Headpond - Location	Location: NN 04594 16411
Headpond Reservoir	Working volume of water up to 58 Mm3

Headpond Embankment	There are three proposed embankments. The maximum embankment height is 110 m high above existing ground level. (425m AOD) Embankment Height 1 (Main) 110 m Embankment Height 2 (North) 15 m Embankment Height 3 (East) 20 m
Headpond Inlet Outlet	Intake tower height: Total estimated height is 60 m. Approximately 40 m below water and 20 m above top water level
Headrace surface surge shaft	Location: NN 03884 16785 A buried shaft that may have an at surface structure.
Tailpond (Loch Awe)	Location: NN 00908 16232
Tailpond Inlet Outlet	Location: NN 00916 16283 Dimensions: Approximately 20 x 70 x 15 m (WxLxH)
Headrace	Length: 600 m
Tailrace	Length: 2,800 m
Power Cavern	Dimensions: 150 x 50 x 25 m
Access Tracks (new temporary)	Total length: 12 km Running width: maximum 7 m
Access Tracks (new permanent)	Total length: 14 km Running width: maximum 10 m
Access Tracks (upgrade)	Total length: 15 km Running width: maximum 10 m
Construction Compounds	Total no. compounds: 10 (6 temporary, 4 permanent) Total area: 450,000 m²
Temporary Accommodation	Some temporary accommodation will be provided within the above compounds, with an additional offsite camp required, location tbc, size circa 8,000 m²
Switching Station	Area: 8,000 – 10,000 m²
Marine Facility – Location (Loch Fyne)	NN 08608 07178
Marine Facility – Size	The final design of the marine facility is to be confirmed but anticipated dimensions are noted below. Distance from shoreline: Approximately 400 m Width: 25 m Height: 7 m (above mean high water springs

1.8 The Company indicates the operational lifetime of the proposed development would be around 80 years and this is considered to be a conservative estimate. Civil works (tunnels and dams) are expected to last for 100 years. However, throughout this period it is expected that the electrical plant will require refurbishment or reconditioning every 25 years.

1.9 The proposed development is solely within the planning authority of Argyll and Bute Council.

2. Consultation

2.1 Following the scoping opinion request a list of consultees was agreed between AECOM Limited (acting as the Company's agent) and the Energy Consents Unit, in consultation with MS-LOT. A consultation on the scoping report was undertaken by the Scottish Ministers and this commenced on 14 July 2022. Additional relevant marine bodies were consulted as part of this scoping request.

2.2 The consultation closed on 15 August 2022. Extensions to this deadline were granted to Argyll and Bute Planning Authority, Scotsway, NatureScot, Historic Environment Scotland ("HES"), RSPB Scotland. The Scottish Ministers also requested responses from their internal advisors Transport Scotland, Scottish Forestry and Marine Scotland Science ("MSS").

2.3 All consultation responses received, are attached in ***ANNEX A Consultation responses***.

2.4 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 EIA report.

2.5 Unless stated to the contrary in this scoping opinion, Scottish Ministers expect the EIA report to address all matters raised and requests for detailed assessment in responses from the consultees and advisors.

2.6 No responses were received from: Ardbrecknish House Restaurant and Bar, Avich & Kilchrenan Community Council, Blairghour Power Company, Braevallich Fish Farm Dawnfresh Seafoods Ltd, British Horse Society, Civil Aviation Authority – Airspace, Cladich House Bed & Breakfast, Clyde Fishermen's Association, Clyde Marine Planning Partnership, Clyde Salmon, Communities Inshore Fisheries Alliance, Defence Infrastructure Organisation, Dunadd Community Council, Fisheries Trust Scotland – Argyll, Fisheries Office, Furnace Community Council, Glenorchy & Innishail Community Council, Highland and Islands Airport, Inveraray Community Council, John Muir Trust, Loch Awe Boats Activity Centre, Marine Safety Forum, National Grid, Northern Lighthouse Board, Portsonachan Hotel & Lodges, Royal Yachting Association, Scallop Association, Scottish Creel Fishermen's Federation, Scottish Fishermen's Organisation, Scottish Wildlife Trust, Scottish Wild and Group, Tay Rivers District Salmon Fisheries Board, Taynuilt Community Council, Tervine Farm Dawnfresh Seafoods Ltd, UK Hydrographic Office, Visit Scotland, West Coast Regional Inshore Fisheries Group, West Lochfyne Community Council, West of Scotland Archeology Society and Whale and Dolphin Conversation.

2.7 With regard to those consultees who did not respond, it is noted that 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 this EIA scoping opinion.

2.8 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 has been adopted following consultation with Argyll and Bute Council, within whose area the proposed development would be situated, NatureScot, Scottish Environment Protection Agency and HES, all as statutory consultation bodies, and with other bodies which Scottish Ministers consider 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 15 June 2022 in respect of the 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 Argyll and Bute Council for publication on their website. It has also been published on the Scottish Government energy consents website at www.energyconsents.scot.

3.4 Scottish Ministers expect the EIA report which will accompany the application for the proposed development to consider and address in full all consultation responses attached in **Annex A,** including both responses from Marine Scotland Science in relation to assessments required in the marine environment. Cumulative impact assessments in relation to the Marine Facility should include any marine projects in its vicinity.

3.5 Scottish Ministers are broadly satisfied with the scope of the EIA set out at Sections 5 to 21 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 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) 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.

3.8 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.

3.9 Where borrow pits are proposed as a source of on-site aggregate they should be considered as part of the EIA process and included in the EIA report detailing information regarding their location, size and nature. Ultimately, it would be necessary to provide details of the proposed depth of the excavation compared to the actual topography and water table, proposed drainage and settlement traps, turf and overburden removal and storage for reinstatement, and details of the proposed restoration profile. The impact of such facilities (including dust, blasting and impact on water) should be appraised as part of the overall impact of the working. Information should cover the requirements set out in 'PAN 50: Controlling the Environmental Effects of Surface Mineral Workings'.

3.10 The scoping report identified representative viewpoints at Table 5.1 to be assessed within the landscape and visual impact assessment. The EIA shall include the Planning Authority's additional viewpoints, additional considerations within the LVIA and cumulative effects. The EIA report shall scope in HES's and NatureScot's requests in relation to additional viewpoints (particularly in the context of wild land areas ("WLA's"). Early engagement with NatureScot ahead of submission of application is encouraged, to understand the potential for effects on WLA, with a view to considering a Wild Land Assessment. is. Scottish Ministers opinion is that pending such consideration a Wild Land Assessment is provisionally scoped in.

3.11 The Scottish Ministers agree with the Planning Authority that waste management should be scoped in to the EIA report to fully evaluate to what extent the objective of minimising importation of materials can be achieved.

3.12 The scope of the EIA report shall take into account the Planning Authority's comments throughout their response in relation to cumulative impacts in relation to landscape character and visual impact, transport and waste management, ecology, nature conservation and on the marine environment associated with a considerable number of large infrastructure proposals under sections 36 and 37 of the 1989 Act (and in particular the Cruachan Pumped Storage Hydro expansion project, the application for which has already been made to the Scottish Ministers). Scottish Minsters advise that detail is required in the EIA report on the engineering construction works on the pier and to provide related track upgrades for transportation of plant and materials, and that this will not be a suitable matter to be resolved through planning conditions. Impacts on the marine environment in

cumulation with Cruachan and its proposed expansion in terms of water extraction and discharge should be carefully detailed.

3.13 Scottish Ministers note that the site is underlain with Class 2 peatland habitats and any impacts on peatland habitats should be fully considered and assessed within the EIA report. Peat and cumulative impacts shall be scoped in to the EIA report as noted in NatureScot's comments.. The Scottish Ministers advise that detailed peat and vegetation surveys should be taken in line with NatureScot guidance, that a preliminary Peatland Management Plan and Habitat Management Plan should be included in the EIA report, and that operational effects and decommissioning in relation to Geology and Ground Conditions should be scoped into the EIA report. Peat depth survey should be provided in line with the Scottish Government guidance. The Scottish Ministers advise in line with SEPA's position on access tracks, and consider that the EIA report should detail the need for two access tracks and set out alternatives that have been considered, and if these have not been adopted, detailed reasoning as to the option chosen.

3.14 Scottish Ministers consider that where there is a demonstrable requirement for peat landslide hazard and risk assessment ("PLHRA"), the assessment should be undertaken as part of the EIA process to provide Ministers with a 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 an assessment and details of mitigation measures. Where a PLHRA is not required clear justification for not carrying out such a risk assessment is required.

3.15 The Scottish Ministers advise that the EIA report must give proper consideration to the assessment of potential cumulative impacts from the restoration and mitigation measures already in place under the Blarghour Land Management Plan ("LMP").

3.16 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, radio links, finalisation of viewpoints, cultural heritage, cumulative assessments and request that they are kept informed of relevant discussions.

3.17 An application under schedule 5 to the 1989 Act for rights to abstract water from Loch Awe for the purposes of the proposed development may be made to the Scottish Ministers. It is requested that any such draft order is submitted on submitting the EIA report, and the applicant is reminded of the associated public notice requirements set out in the schedule. Information to support should include potential cumulative impacts of water draw and discharge to Loch Awe with other operational and proposed PSH development on the loch.

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 environmental impact assessment. 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 of all mitigation measures proposed in the EIA report, provided in tabular form, where that mitigation is relied upon in relation to reported conclusions of likelihood or significance 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 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 development.

5.5 Scottish Ministers note that 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.

5.6 Applicants are encouraged to engage with officials at the Scottish Government's Energy Consents Unit at the pre-application stage and as the application progress to submission.

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

5.8 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.

5.9 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 sizes no more than **10 megabytes (MB).**

Shafharia Khataza
Energy Consents Unit

ANNEX A

Consultation

List of consultees

- Argyll and Bute Council
- Historic Environment Scotland
- NatureScot
- Scottish Environmental Protection Agency
- Aberdeen Airport
- Ardbrecknish House Restaurant and Bar*
- Argyll District Salmon Fisheries Board
- Avich & Kilchrenan Community Council*
- Blairghour Power Company
- Braevallich Fish Farm Dawnfresh Seafoods Ltd*
- Blarghour Farm
- British Horse Society*
- British Telecommunications plc
- Civil Aviation Authority – Airspace*
- Cladich House Bed & Breakfast*
- Clyde Fishermen's Association*
- Clyde Marine Planning Partnership*
- ClydePort (Peel Ports)
- Clyde Salmon*
- Communities Inshore Fisheries Alliance*
- Crown Estate Scotland
- Defence Infrastructure Organisation*
- Dunadd Community Council*
- Edinburgh Airport
- Fisheries Management Scotland
- Fisheries Trust Scotland – Argyll*
- Fisheries Office*
- Furnace Community Council*
- Glasgow Airport
- Glasgow Prestwick Airport
- Glenorchy & Innishail Community Council*
- Highland and Islands Airport*
- Inveraray Community Council*
- John Muir Trust*
- Joint Radio Company Limited
- Loch Awe Boats Activity Centre*
- Marine Safety Forum*
- Maritime and Coastguard Agency
- Mountaineering Scotland
- National Grid*
- NATS Safeguarding

- Network Rail
- Northern Lighthouse Board*
- Nuclear Safety Directorate (HSE)
- Portsonachan Hotel & Lodges*
- RSPB Scotland
- Royal Yachting Association
- Scallop Association*
- Scottish Creel Fishermen's Federation*
- Scottish Fishermen’s Federation
- Scottish Fishermen's Organisation*
- Scottish Rights of Way and Access Society
- Scottish Water
- Scottish Wildlife Trust*
- Scottish Wild and Group*
- Tay Rivers District Salmon Fisheries Board*
- Taynuilt Community Council*
- Tervine Farm Dawnfresh Seafoods Ltd*
- UK Chamber of Shipping
- UK Hydrographic Office*
- Visit Scotland*
- West Coast Regional Inshore Fisheries Group*
- West Lochfyne Community Council*
- West of Scotland Archeology Society*
- Whale and Dolphin Conversation*

*No response was received.

Internal advice from areas of the Scottish Government was provided by officials from Scottish Forestry, Transport Scotland*, Marine Scotland Science and Marine Scotland - Licensing Operations Team.

Argyll and Bute Council
Comhairle Earra Ghàidheal agus Bhóid

Development and Economic Growth
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Your Ref. : ECU00003444

21 September 2022

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Dear Sirs,

ELECTRICITY ACT 1989

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017, SCOPING OPINION REQUEST FOR PROPOSED NEW PUMPED STORAGE HYDRO SCHEME AT BALLIEMEANOCH.

Section 36 Proposal by Intelligent Land Investments (ILI)

I write in reference to your consultation regarding the above and would thank you for agreeing to extend the timescales to allow additional time for this response. Please find the Council's consultation response to the scoping request enclosed.

I should point out that the issuing of this scoping consultation advice should not be taken to indicate support for the proposal on the part of Argyll and Bute Council. The Council's recommendation on any future S36 application would rely upon the consideration of the content of any accompanying environmental information, the responses of consultees, the views of third parties and any other material planning considerations which would be reported to Members to obtain their views.

Please note that in terms of the Council's 'Argyll and Bute Local Development Plan' (adopted 2015) the Council will support renewable energy and associated infrastructure developments where these are consistent with the principles of sustainable development and it can be adequately demonstrated that there would be no unacceptable significant adverse effects, whether individual or cumulative, including on local communities, natural and historic environments, landscape character and visual amenity, and that the proposals would be compatible with adjacent land uses and the Planning Policy Objectives of the Statutory Planning Framework in place at time of submission and determination of the S36 proposals

In respect of the Local Plan Planning Policy framework. Your attention is drawn to the emerging LDP 2. Depending upon the date of any future application this may have reached a stage in the adoption process where the weight to be afforded to this will be increased or it may be adopted.

I trust you find the enclosed information of assistance.

Yours sincerely

David Moore

Senior Planning Officer
Argyll and Bute Council

APPENDIX A
ELECTRICITY ACT 1989

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

SCOPING CONSULTATION RESPONSE ON BEHALF OF ARGYLL & BUTE COUNCIL FOR PROPOSED SECTION 36 APPLICATION.

PROPOSAL: PROPOSED NEW PROPOSED NEW PUMPED STORAGE HYDRO SCHEME AT BALLIEMEANOCH.

DESCRIPTION OF PROPOSALS

The Applicant proposes to construct a Pump Storage Hydro (PSH) scheme close to Lochan Airigh approximately 4.4 km to the south of the village of Portsonachan and 9 km northwest of Inveraray in Argyll and Bute as shown on Figure 1.1 Location Plan. The applicant confirms that the Development Site was identified from a Scotland-wide site search exercise and is considered suitable due to a number of factors such as topography, underlying geology, and an appropriately sized catchment. The proposed Development will discharge water from its tailrace back into Loch Awe which is also utilised by the existing Cruachan scheme. Cruachan is a 440 MW pumped storage hydro-electric scheme which has been operating since 1965. There is a current S36 application lodged with the Scottish Minsters for an expansion of the Cruachan scheme.

The total area within the Development Site boundary is approximately 3,054 hectares (ha). The applicants clarify that of this area within the Development Site boundary will be developed). Balliemeanoch PSH will have a storage capacity of up to 45,000 megawatt hours (MWh) with up to 1,500 MW installed electrical generation capacity.

BUILD ELEMENTS

In respect of the current proposals the applicant confirms that these will involve the following main build elements:

- **Headpond** The upper reservoir, including embankment or dam. The headpond intake tower total estimated height is 60 m. Approximately 40 m below water and 20 m above top water level.

- **Embankment** Embankments or dams around the headpond reservoir/water body.

  There are three proposed embankments. The maximum embankment height is 110 m high above existing ground level. (425m AOD)

  Embankment Height 1 (Main) 110 m
  Embankment Height 2 (North) 15 m
  Embankment Height 3 (East) 20 m

- **Reservoir Water body** retained within the headpond embankments and the tailpond.

- **Tailpond** The lower reservoir. In this case this is the existing water body of Loch Awe.

- **Inlet / Outlet** The location where the tunnels (headrace / tailrace) enter the headpond and tailpond.

- **Headrace** The underground high-pressure tunnel connecting the headpond to the power cavern.

- **Tailrace** The underground low-pressure tunnel connecting the power cavern to the tailpond.

- **Power Cavern** This is a below-ground component that will contain the combined pump / turbines, generators, switchgear and transformers.

- **Cable Tunnel** The underground tunnel hosting the power cables which will export the generated power from the underground power cavern to the surface at the sub/ switching station.

- **Access Tunnel** The underground tunnel providing access (construction and operation) to the power cavern.

- **Sub / switching station** This station will be an above-ground component that will consist of a secure electrical compound in which electrical equipment will be housed.

- **Spillway /Spillway Channel**. This spillway will consist of a buried pipeline and will be used as a system to drain any excess water from the headpond as well as being used for the scouring and draining down of the headpond in an emergency situation.

- **Surge Shaft(s)** Structures that are provided along the waterways to contain pressure fluctuations within the hydraulic system. The low-pressure tunnel surge shaft will be underground. The high-pressure tunnel surge shaft will be underground but may have section cut into the hillside (subject to design).

- **Pier Structure at Inveraray** Marine Facility Located on the coast near Inveraray, this facility is predominately temporary and will be used for large deliveries to site. The marine structure will be a pier structure that will project into Loch Fyne. The height / depth of the structure is determined by the seabed and tidal range. Dolphin structures, or equivalent, could be associated with the marine structure. These will be used for mooring larger vessels to the structure.

- **Access Tracks**

- **Compounds Temporary and permanent compounds** will be required across the proposed Development. Some will be used for construction related activities such as laydown areas, work yards and for general site maintenance. Others will be used for office space, parking areas, welfare areas, and accommodation. These may include electric

- **Temporary Accommodation** Some temporary accommodation will be provided within the above compounds, with an additional offsite camp required. It is estimated that the potential footprint of the offsite camp could be approximately 50,000 m² (subject to design). This temporary accommodation will likely be located close to the Development Site and/or along one of the construction access routes. This offsite location has yet to be identified with the relevant studies currently being undertaken.

- **charging points** for electric shuttle cars/buses.

CONTENT OF SCOPING REPORT

The following matters are addressed in the main chapter headings of the Scoping report

- Landscape and Visual Assessment
- Terrestrial Ecology
- Aquatic Ecology

- Marine Ecology
- Ornithology
- Geology and Ground Conditions
- Water Environment
- Flood Risk and Water Resources
- Cultural Heritage
- Access, Traffic and Transport
- Noise and Vibration
- Socio-Economics, Recreation and Tourism
- Climate
- Arboricultural Impact Assessment
- Marine Physical Environment & Coastal Processes
- Shipping and Navigation
- Commercial Fisheries

The Council is in general agreement with the topics identified in the Scoping Report for evaluation.

LANDSCAPE CHARACTER AND VISUAL IMPACT

The proposed development is located within the North Argyll Area of Panoramic Quality (APQ). Although this is not a national designation it is a development plan designation and reflects both the high quality and sensitivity of the landscape.

In the opinion of the Planning Authority the absence of any clear information associated with the temporary accommodation, location, design and potential impacts over a lengthy construction period (5 years) require to be included in any LVIA exercise. AS does restoration proposals to ensure that no long term adverse landscape/ecologica/peat impact is caused.

The need to ensure cumulative impacts of future development proposals are considered is acknowledged at 5.2.3 and 5.4.8. This is an area of Argyll which is currently subject to considerable number of large infrastructure proposals including S37 Power Line proposals by SSEN and large scale substation proposals at the current time. A current S36 application for an expansion to Cruachan is also before the ECU at the current time with impacts in terms of construction, waste movement and also extraction of water.

On this basis it is considered that landscape impacts, both in respect of the current proposals and associated infrastructure on landscape, together with a cumulative impact analysis in terms of the inter relationship between this proposal and other large infrastructure projects in the APQ area, are properly evaluated and considered in the EIAR at time of submission.

It is anticipated by the applicants that ten compounds will be required for the construction period and that four of these would be retained for the full duration of the proposed Development. The proposed locations use and approximate size of each of the compounds are detailed in Table 2.3 Proposed Construction Compounds and are shown on *Figure 1.2*. Table 2.3 indicates a total site area associated with construction compounds of some 73,000sqm and text further clarifies that:

The proposed construction compounds will be constructed with a mixture of imported material at the commencement of construction works, following which material that is generated from the tunnelling activities will be used. The compound surfaces are anticipated to be unsealed (stone, metalled or gravel surface) in nature and will be either floated (over peat) or built into the hillside depending on the site conditions and anticipated loads. Compounds 5, 6, 7, 8, 9, and 10 will be removed and the areas reinstated once construction is complete.

This is a significant area and although such impacts are most likely temporary, the EIAR requires to clarify impact, mitigation and restoration in respect of any compounds being formed given their scale and length of requirement. (5 year build programme)

It is welcomed that the applicants confirm at 2.7.2.5 that:

The offsite location for temporary workers' accommodation has yet to be identified with the relevant studies currently being undertaken. The Applicant will continue to liaise with the relevant stakeholders to determine this location. As part of this, the Applicant is committed to investigating the provision of permanent housing to the local market.

If this accommodation is proposed within the countryside and not within any settlement envelope or identified site suitable for such construction then LVIA analysis of potential impacts and construction activity associated with the provision of this such development will in the opinion of the planning authority be required as part of the application submission and not left to a conditional matter. However it is hoped that discussions over providing accommodation which may be able to be utilised by the community in the future will be able to be undertaken. At the present time , as no identified locations have been provided it is not considered appropriate to automatically scope such matters out and further details require to be provided as part of the S36 submission.

In terms of the suggested viewpoints as set out at Figure 5.6. Officers consider that views from the Duncan Bann Monument (near Dalmally) should be added as this is a popular and widely visited location for tourists and locals. It is located to the north east of the proposed development and may afford views of the headpond. Views from open water within Loch Awe at maximum visibility locations would also be recommended as this is a popular recreational Area both in summer and in winter associated with boating and fishing..

TRANSPORT AND WASTE MANAGEMENT

The applicants at 2.3 confirm that:

- There are no classified roads or tracks within the Development Site at the headpond or tail pond location. However, at Inveraray there is a <1 km section of classified road (A83) at the proposed pier location.

- Site access is proposed off the A819 which links the strategic trunk roads A85 to the north at Dalmally and A83 to the south at Inveraray. It is anticipated the general construction access will come from the north and south along the A819. Construction access from the south will bypass Inveraray via a section of unclassified existing track (to be upgraded) north of Inveraray Castle which will connect the A83 to the A819.

- Larger construction traffic, such as abnormal loads, will be delivered by boat to the proposed pier, where they would be transported to site via the A819. Access to the A819 will be via an upgraded existing access track that runs to the north, then east, from the A83, around the north of Inveraray. There are proposed upgrades to the existing unclassified road "Upper Avenue" at Inveraray and a new track linking this to the A83 at the proposed pier location.

- These upgrades are proposed to ease traffic and to avoid sensitive bridges within the area of Inveraray.

The Scoping Report clarifies that:

From the A819, it is proposed that access will be gained from two existing forestry tracks located at NN 08853 12473 and NN 10064 19980. Each of the proposed access routes will utilise existing forestry tracks as far as possible with some stretches of new track to be constructed. Both access tracks will link the A819 with the proposed headpond area located near Lochan Airigh as shown in Figure 1.2 above Ground Infrastructure.

Internal site access tracks will be required linking the Development components. These will be a mixture of permanent and temporary tracks to enable construction. These tracks will either be sealed or unsealed in nature. Existing access tracks and infrastructure will be utilised as far as possible; however, it is noted that the existing infrastructure such as bridges, culverts, and roads

may require upgrade. The material that will be used to construct the tracks will be made up of both imported material and material that is sourced from within the Development Site.

Access requirements between the construction compounds and the various work areas will change throughout the construction period. The majority of the traffic will be general construction vehicles such as dump trucks, HGV's and general large plant and equipment. General site traffic such as vans, minibuses, and four-wheel drive vehicles will also use the road network.
Construction traffic routes will be developed in parallel with the EIA and will take account of the suitability and capacity of local roads. If any existing roads need to be crossed, they will be crossed perpendicular so as to reduce the potential impact from construction traffic.

Para 2.7.2.2 further clarifies that:

The main vehicle movements would occur during the middle of the construction period, whilst the major earthworks above and below ground are underway. It is anticipated that the large plant and equipment will remain inside the construction areas for each component of the proposed Development and the operators and staff will be shuttled around site via light vehicles such as vans, minibuses and pickup trucks. Also included in the areas will be temporary fuelling stations with fuel bowsers and pumps although it is hoped that alternative fuels will be available in time for construction.

The tunnel boring machine (required if drill and blast construction of the tunnels not suitable) will be transported to the new marine facility, located on Loch Fyne, in a vessel. The components will then be transferred to land by either a roll on roll off vehicle or heavy lift equipment from a vessel to a transporter on land. The components will then be transported to site on the back of a specialised transporter either via the northerly or southerly access route from the A819 to the main development site. The marine facility area, as shown in Figure 1.2 above Ground Infrastructure, will consist of a marine facility that is expected to have both temporary and permanent components. The marine facility will accommodate the delivery of large components associated with the tunnelling and mechanical and electrical components. Several different types of plant and equipment will be required for the construction and operation of the proposed marine facility.

It is noted that the scoping report clarifies that;

The proposed Development requires a significant amount of material to construct the impoundment structures of the headpond. The design, shape, and size of the impoundment will be confirmed through the EIA process. However, at this stage, it is anticipated the main embankment structure could be around 110 m high and have a volume of around 4,600,000 m³…. The approximate material volume calculations are provided in Table 2.5. This is indicative at this stage until preliminary site investigation works have been undertaken in order to inform the design of the proposed Development and the cut and fill balance calculations. Therefore, it is proposed to provide an MMA as part of the EIAR which will provide additional information on the type and volume of materials generated from the proposed Development. This will also determine the requirement for any permanent storage of material which could be considerately landscaped, as opposed to significantly impacting the local transport network with movements offsite.

There will be a requirement to ensure that any proposals which would impact the roads network taken into account cumulative impacts on the network having regard to the fact that a large number of energy related infrastructure projects are proposed in the area. This is a potentially significant impact, not just in terms of road safety and capacity, but also in terms of the wider economy of Argyll and Bute if vital arteries are congested due to ongoing construction of both this and other S36 and S37 projects in the vicinity by both SSEN and Drax (Cruachan) as well as Windfarm and large SSEN substations.

The potential/confirmed construction phasing of other major infrastructure construction projects requires to be evaluated when the EIAR is submitted and not be left as a matter for conditional approval under any deemed consent, as a high level strategic review of road capacity and safety with Transport Scotland and the Argyll and Bute roads is considered to be required and may become a defining matter in the determination of the applications and not a matter suitable to be

addressed by conditions.

The applicants confirm that:

Due to the volume of material anticipated to be required for the construction of various components, a Materials Management Appraisal (MMA) will be undertaken as part of the EIA process and updated prior to construction, to ensure that the material that is generated from construction is classified and reused as far as practically possible

This is a welcomed commitment and waste management, materials and equipment importation and analysis of the safe capacity of the local road network is considered by the Planning Authority to be a substantive matter for the EIAR to address by submission and not a matter for conditional approval.

It is welcomed that the applicants confirm that:

The intention is to use as much of the rock / surplus material generated on site to construct the proposed Development components (embankment, roads, and concrete structures) whilst reducing the excess material to a minimum.

Officers are aware of the need to extract and export large volumes of rock/waste material from the Cruachan expansion proposals if this is approved and proceeds. It is considered that a "duty to co-operate" utilising best endeavours between the two S36 Hydro proposal developers should be required by the Scottish Ministers to ensure any waste from Cruachan which could be utilised at Balliemeanoch is not transported away from the local area if it has the potential to be used locally in accordance with sustainable objectives. A commitment to investigate such an agreement as part of the application proposals should in the opinion of the Planning Authority be provided as part of any S36 application submission.

ECOLOGY /NATURE CONSERVATION/MARINE ENVIRONMENT

The scoping report at 2.7.4.5 clarifies that once the proposed Development is fully commissioned, the working water volume will pass between the headpond and Loch Awe in order to provide the storage and generate electricity at peak times. It is anticipated that the average drawdown level of the headpond will be between 420 and 340 m AOD. The estimated drawdown in Loch Awe, when at Top Water Level (TWL), is estimated to be around 1 m.

The applicant's state that *a management/ water use agreement will need to be agreed with other water users in the Awe catchment to ensure there is sufficient water resource for all parties. It should be noted that a PSH scheme will tend to operate on cycles that are dictated by the energy markets, it is therefore considered unlikely that the scheme will fully empty then immediately fill.*

Given that there is also a current S36 application to expand Cruachan, there is a need to ensure that potential cumulative impacts of maximum simultaneous water draw for both schemes is considered unless a mechanism to restrict /avoid such a scenario can be suggested by Scottish Ministers. It is the opinion of the Planning Authority that such matters should not be left to the operational cycles of the energy markets to dictate the evaluation of potential maximum draw/discharge scenarios if both Cruachan and Balliemeanoch are operating.

Marine Policy Officer Comments

Overall Scoping Opinion

- It is the Officer's opinion that the proposed development does constitute an Environmental Impact Assessment (EIA) as defined under Schedule 2 of the EIA Regulations. The proposal will also require planning permission for any quayside and or pier/jetty construction, and will need to consider cumulative infrastructure impacts during the works and to ensure continued safe access / egress during this time. I further recommend that a precautionary approach be undertaken for the duration of works.

- The EIAR must provide updated site survey information where appropriate; all surveys and data sets after two years must be updated.

- Together with the EIAR, the applicant is requested to submit their Intertidal Phase 1 Survey, Subtidal Benthic Survey, and walkover fish habitat assessment.

- The applicant is requested to submit a Construction Environment Management Plan (CEMP) and Method Statement for all aspects of the proposed development. With respect to the marine and coastal environment, the CEMP must include a Noise Method Statement for impact piling and include all management plans as set out under section 3.4.1.6 Mitigation.

- In terms of possible introduction and spread of marine Invasive Non-Native Species (INNS), the applicant is requested to submit a Biosecurity Management Plan.

- In terms of water quality, drainage and flooding; all water assessments are to be submitted with the EIAR.

- The applicant is requested to submit a bathymetric survey, review of geotechnical information, a sediment dispersion study, and sediment sampling analysis for the Marine Facility in Loch Fyne.

Section 2.7.2.3 - Materials Management

1. It is welcomed that the applicant is proposing to apply for a Waste Management Licence (WML) and develop a Waste Management Plan (WMP) in support of their EIA.

2. I further welcome the proposed Materials Management Appraisal (MMA) to be included within the EIAR.

Chapter 5 – Landscape and Visual Amenity

• The Marine Facility proposal at Newtown, Loch Fyne is located within a Main Settlement Zone and the West Loch Fyne Local Landscape Area (LLA), as identified in the adopted Local Development Plan (LDP) 2015.

• Balliemeanoch, West Lochawe is located within the Lorn and Inner Isles Rural Opportunity Area, and the catchment of the Allt Beochlich watercourse is located within Lorn and Inner Isles Very Sensitive Area.

• Given the proposal is highly likely to have visual impacts and cumulative effects during and after the construction phase, the applicant is requested to submit a final Landscape and Visual Impact Assessment (LVIA) together with a Zone of Theoretical Visibility (ZTV), including schematics and photomontages from key viewpoints in support of their application at the final planning stage.

• The development's design and scale should respect the character and appearance of the surrounding area, and be consistent with Policy LDP 9 – Development Setting, Layout and Design, associated Supplementary Guidance and the Argyll and Bute Landscape Capacity Assessment.

Chapter 7 – Aquatic Ecology

• The Awe catchment is the largest and most diverse freshwater catchment area in Argyll, which sustains a variety of fish species and habitats that are an important part of the region's biodiversity. These freshwater habitats include; streams, rivers and lochs, which is an important fishery for Atlantic salmon (Salmo salar), brown trout (Salmo trutta), European eel (Anguilla Anguilla) and lamprey species. The Atlantic salmon is protected in its freshwater life-cycle stages under Schedule 3 of the Conservation (Natural Habitats, &c.) Regulations 1994, and is a UK Biodiversity Action Plan (BAP) priority species. Brown trout are also a UK BAP priority species. The health of salmonids and other fish populations are dependent on clean freshwater habitats

throughout the catchment. The general trends in abundance of fish indicate a decline in natal species with consequences for the performance of the fisheries. Human-derived pressures acting on freshwater habitats include; forestry, agriculture, infrastructure development including the increasing development of renewable energy schemes (Awe Catchment Fishery Management Plan 2014-19).

- Loch Awe and its catchment is an important migratory route for salmonids. Changes to water flows can impede successful migration up stream. Correct water flows are essential for allowing access to spawning grounds, including a sufficient water level for the survival of buried eggs. It will therefore be important that throughout the construction and operational phases, the applicant is advised to ensure that all naturally available habitat is accessible to fish, including: sufficient water flows; the hydrology (drainage), underlying geology, and geomorphology is not affected, and to provide mitigation against any habitat loss/damage through a habitat restoration programme.

- The electric fishing and e-DNA surveys that were conducted in October 2021 are welcomed. The field survey results to be published in the Ecological Impact Assessment (EcIA) component of the EIAR is further welcomed and is to be submitted with the EIAR.

- In addition to the previous surveys conducted, it will be important to note that a pre-commencement walkover Scottish Fisheries Coordination Centre (SFCC) fish habitat assessment should be undertaken on the Allt Beochlich watercourse and main tributary watercourses of Loch Awe and Loch Fyne. The assessment should aim to quantify and evaluate the condition of freshwater habitats utilised for recruitment by fish, and in particular salmonids prior to the commencement of the Construction Phase.

- The applicant is to note that a ‘soft start’ approach to deter fish from the immediate area and all impact piling works across the development should not be undertaken during the salmonid smolt migration period (March to end of June).

- The applicant is advised to consult with Argyll Fisheries Trust (AFT), Argyll District Salmon Fishery Board (ADSFB) and the Awe District River Improvement Association (ADRIA) in the first instance for further advice on survey methods.

- Otters are classed as European Protected Species (EPS) under the Conservation (Natural Habitats, &c.) Regulations 1994, as translated into domestic legislation post-Brexit and via the Wildlife and Countryside Act 1981 (as amended).

o The applicant has undertaken a survey for protected mammals that included otter. A pre-construction survey and general good practice measures are advised. Welcome mitigation measures as outlined in Section 6.5 Likely Mitigation Measures.

o An EPS Licence to conduct works will be required through NatureScot: -

https://www.nature.scot/professional-advice/protected-areas-and-species/licensing/species-licensing-z-guide/otters/otters-licences-development.

Chapter 8 – Marine Ecology

- Upper Loch Fyne is designated as a Nature Conservation Marine Protected Area (NCMPA) for burrowed mud habitat and flame shell beds, and has a Marine Conservation Order in place to protect the horse mussel beds. It is important to note that Priority Marine Features (PMFs) have also been recorded in the development area for the proposed Marine Facility, and include:

o kelp and seaweed communities on sublittoral sediment;

o fireworks anemone (Pachycerianthus multiplicatus);

o tall seapen (Funiculina quadrangularis);

o mud burrowing amphipod (Maera loveni).

• As the construction and operational phases may have Likely Significant Effects (LSEs) to the benthic habitats and PMFs, it is therefore agreed and welcomed that the applicant undertake an Intertidal Phase 1 Survey and a Subtidal Benthic Survey as discussed under section 8.3 – Methodology of the Scoping Report. The applicant is further advised to consult with NatureScot to confirm appropriate survey methodologies.

• Loch Shira is an important nursery area for salmon and sea trout populations, and is part of the Loch Fyne Marine Consultation Area.

• The 'Loch Fyne Coastal Strip' Shellfish Growing Water extends throughout most of the policy zone, except for the coastline from Newtown to 1 km north of Inveraray. Native oysters, Pacific oysters, and Purple sea urchin are farmed at Ardkinglas, Loch Fyne Oysters Ltd.

Possible Likely Significant Effects to cetaceans, seals, basking sharks

• Loch Fyne lies out-with formally designated areas for harbour porpoise (Phocoena phocoena), other cetaceans, seals, and basking shark (Cetorhinus maximus).

• It is however important to note that cetaceans, seals, and basking sharks that frequent the area can come into contact with vessel and pier operations. The applicant is therefore advised to operate vessels at low speeds. The Marine Mammal Monitoring Management/Sighting Plan with 'soft start' approach in place over the construction period is welcomed. The applicant is advised to log daily cetacean and basking shark sightings and prepare a report during the construction period. NatureScot should be able to provide further details and a suitable method.

• As a measure of good practice the applicant is advised to apply for:

1. European Protected Species (EPS) Licence for possible disturbance to cetaceans;

2. Under Part I, section 16(3)(i) of the Wildlife and Countryside Act 1981, a licence to disturb basking sharks (Cetorhinus maximus).

Underwater noise and pier structure piling works

• Limited information has been provided on the proposed piling works for the construction of the Marine Facility. It is recommended that the contractor provide within their Construction Environment Management Plan (CEMP) a Method Statement. The Method Statement must detail the proposed piling works, including duration, type of piling, predicted noise levels and mitigation measures that will be adhered to. The CEMP and Method Statement must be agreed by the Council in consultation with NatureScot prior to works commencing.

• In addition to the above, the applicant will adopt JNCC mitigation protocols to minimise disturbance to marine mammals from piling sound (JNCC, 2010); this approach is welcomed. The JNCC guidance is located under the following web link: Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise:

http://jncc.defra.gov.uk/pdf/JNCC_Guidelines_Piling%20protocol_August%202010.pdf.

• The applicant is further advised to review The Protection of Marine European Protected Species from Injury and Disturbance - Guidance for Scottish Inshore Waters (July 2020) document on the following web link:

o https://www.gov.scot/publications/marine-european-protected-species-protection-from-injury-and-disturbance/.

• Shipping activities have the potential to introduce Invasive Non Native Species (INNS) into the waters and coastline of Argyll. I note that the applicant has not developed a biosecurity plan for the potential introduction and spread of INNS, namely; the carpet sea squirt

(Didemnum vexillum), the leathery sea squirt (Styela clava), and wireweed (Sargassum muticum). The applicant is requested to provide a Biosecurity Management Plan (BMP) with their EIAR. The BMP should detail good practice methods to avoid and limit the introduction and spread of INNS that relate to the shipping activities in particular.

- The applicant must adopt pollution prevent strategies for potential diesel, hydraulic and battery spillages into the environment (shoreline & at sea). Further to the applicant's pollution Likely Mitigation Measures outlined under section 8.5, it is advised that the contractor follow appropriate Pollution Prevention Guidelines located on the NetRegs and SEPA web links respectively:

  - https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/;

  - https://www.sepa.org.uk/regulations/water/guidance/.

Chapter 11 – Water Environment

- Under the SEPA Loch classification system, Loch Awe is classified as having an overall Moderate ecological status and a chemical status of Pass. The Awe catchment is classified as a Heavily Modified Water Body (HMWB) due to the alterations of the water body for hydroelectricity generation. SEPA should be able to advise if the proposal is likely to further significantly impact the Awe catchment. The proposed: Water Quality and Water Resource Impact Assessment, Hydro-morphological Survey, and Water Framework Directive (WFD) Assessment are welcomed and should be submitted with the EIAR.

- The applicant is requested to submit full details of the Water Management Plan and Surface Water Drainage Strategy, including the Emergency Response Management Plan, and mitigation measures within their Flood Risk Assessment. It will be important that the proposed development does not attribute to an increase in excess surface and ground water accumulations. It will also be important that the development does not attribute to an increase in pollution and any siltation/spoil entering Loch Awe, including the Oban and Kintyre groundwater bodies, and private water supplies.

- The applicant is advised to adhere to good practice measures for working in and near to watercourses during the construction phase, and should include:

  - Installation of silt interception traps to minimise unchecked contaminated run-off;

  - Appropriate artificial drainage must be designed and installed;

  - Fuels and other chemicals must be stored securely within the site construction compound;

  - Appropriate wash-out facilities must be available for vehicles and machinery;

  - Trenches and excavations must be covered at the end of each working day.

- Abstractions and discharges are regulated by the Water Environment (Controlled Activities) (Scotland) Regulations 2011, more commonly known as the Controlled Activity Regulations (CAR) licence process. The applicant must apply for a CAR licence. Full details on how to apply for a CAR licence are located at: https://www.sepa.org.uk/regulations/water/.

SEPA will provide specific advice relating to the freshwater abstractions and discharges.

Existing Aquaculture and other users

- Dawnfresh Seafoods Ltd. operate two rainbow trout fin fish farms in Loch Awe. Existing hydro generation schemes may also be effected by the development. Depending on the volume of water abstracted over a 24 hour period, there may be an impact to Loch Awe ecology and its water

level. It will therefore be important for the applicant to consult with SEPA and other loch users prior to works commencing.

Chapter 12 – Flood Risk and Water Resources

• The applicant is to include a Flood Risk Assessment (FRA) within their EIAR. The FRA will comply with all related water policies as outlined under Local Development Plan (LDP) above.

Chapter 14 – Access Traffic and Transport

• Under Policy 42 – Safeguarding Piers, Ports and Harbours; development proposals for a new temporary pier, port or harbour facilities will only be considered where it has been clearly demonstrated how the whole site including any related access and working areas can be restored to the satisfaction of the planning authority once the facilities are no longer required.

• The applicant must provide the proposed pier/jetty and wharf construction details within their CEMP and Method Statement together with their planning application. The proposal will need to consider cumulative infrastructure impacts during the works and to ensure continued safe access / egress during this time.

Chapter 15 – Noise and Vibration

• Mitigation measures to abate noise and vibration should be deployed during the construction and operational phase of the development. Predicted noise and vibration levels should be detailed within the CEMP and EIAR.

• As limited information is provided on the proposed impact piling works for the Marine Facility, the applicant/contractor is requested to submit a Noise Method Statement for the construction and operation that outlines timing, duration and expected noise levels. The Noise Method Statement should detail potential Likely Significant Effects (LSEs) and be agreed by the Planning Authority and NatureScot respectively prior to works being commenced.

Chapter 19 – Marine Physical Environment & Coastal Processes

Impacts on water quality (Loch Fyne)

• It is important to note that the Loch Fyne coastal strip is a shellfish growing water. Dredging impacts associated with the Marine Facility may have a Likely Significant Effect (LSE) to the ‘Good’ classification of the Upper Loch Fyne waterbody from siltation. If dredging and maintenance dredging is confirmed by the applicant, the use of a silt curtain boom is advised throughout all dredging periods to avoid siltation, sediment dispersion, and pollution events. It is further advised that the contractor consult with SEPA on this issue and follow appropriate dredging guidance located on the SEPA web link:

o https://www.sepa.org.uk/regulations/water/guidance/#dredging.

• If dredging is a requirement of the Marine Facility, the applicant will need to apply for a Marine Licence to dredge from Marine Scotland – Licensing and Operations Team (MS-LOT) and the Crown Estate (Scotland) respectively. All licensable marine work information is available on the following web links:

o https://www.gov.scot/publications/marine-licensing-applications-and-guidance/

o https://www.crownestatescotland.com/scotlands-property/coastal/marine-works.

• The proposed bathymetric survey, the detailed review of geotechnical information, and a sediment dispersion study around the marine facility area to understand potential coastal morphology and sediment transport at the site are required and must be detailed within the EIAR. As a matter of good practice, the effects of fine sediment dispersion due to maintenance dredging and disposal should not be scoped out of the EIAR. The applicant should explain

more thoroughly their reason for this.

- A sediment sampling analysis is further required and must also be detailed within the EIAR.

- A site walkover survey and development of a numerical hydrodynamic model are welcomed, and the results should be presented within the EIAR.

- The applicant is to note that the number of functioning sea outfalls identified in the Loch Fyne ICZM Plan may have changed since its publication in 2009. It is recommended that the applicant consult with SEPA and Scottish Water in the first instance to confirm existing and proposed sea outfalls in the vicinity of the proposed development.

- The monitoring of Total Suspended Solids (TSS) during the construction phase is welcomed, but if levels are exceeded, the applicant will need to address what appropriate action will be taken to ensure that adverse impacts are minimised and mitigated for.

Chapter 20 – Shipping and Navigation

- The applicant is advised to consult with Clydeport, Northern Lighthouse Board, Ministry of Defence, CalMAC, The Scottish Salmon Company, and the RYA to determine what would be the proposed affects to safe navigation and recreational boating during construction of the Marine Facility in Loch Fyne.

Chapter 21 – Commercial Fisheries

- The review of the commercial fleet and baseline assessment in Loch Fyne is welcomed. The applicant should provide a complete assessment of commercial fisheries to inform the EIAR and consult with the West Coast Regional Inshore Fisheries Group, and the Clyde Fishermen's Association in the first instance.

General comments

Interaction with other activities

- The Council is required to protect public access rights to and along the foreshore for all non-motorised users. Where there is a pier or breakwater structure that will obstruct access along a foreshore or loch side, a reasonable means of passing by the obstruction should be provided to allow the public to exercise their right of access along the shore, where appropriate.

- Any pier/jetty construction should be marked according to advice from the Northern Lighthouse Board.

- The proposal is a large engineering operation which is likely to have significant interaction with road transportation. However, the proposed development is considered to be consistent with the relevant policies of the Local Development Plan.

Pre-application discussion

- The applicant should undertake pre-application discussion with relevant stakeholders in addition to those previously discussed, including: SEPA, Scottish Water, NatureScot, AFT, ADSFB, ADRIA, Loch Fyne Oysters Ltd, and Dawnfresh Seafoods Ltd. in the first instance. Where appropriate, the applicant should provide a summary of pre-application discussion undertaken with key stakeholders in support of a full S36 application.

Biodiversity Officer Comments

No comments have been received at time of writing.

West of Scotland Archaeology Service Comments

I refer to the above scoping request. The scoping report cultural heritage section is quite general but I agree with the statements made and do not think that indirect/setting issues will form a major problem for the scheme. I agree there will be a major direct impact on undesignated sites and that a suite of mitigation will be required for dealing with this and the potential for buried remains in areas of proposed ground disturbance. I agree that walk over survey is required for areas of proposed ground disturbance and flooding and look forward to the EIA report in due course.

Area Roads Engineer Comments

These have not been received at time of writing. However the stated intention within the Scoping Report to discuss roads capacity/safety matters and potential cumulative impact issues with Transport Scotland and the Area Roads Manager prior to submission of the application is welcomed.

OVERALL CONCLUSIONS OF SCOPING REPORT

The Scoping Report at Table 3.2 summarises the matters to be evaluated within the proposed EIAR and also those matters which are proposed to be scoped out. This is set out below:

Table 3.2 Summary, Proposed EIA Scope

Environmental Topic	Proposed Scope of Assessment	Element Proposed to be Scoped Out
Landscape and Visual Assessment	Assessment of the effects on landscape character and visual amenity for construction, operation and decommissioning of the proposed Development.	Decommissioning
Terrestrial Ecology	Survey and assessment of: • Habitats, including NVC; • Protected mammals; • Butterflies, dragonflies and damselflies; and • Terrestrial and riparian invasive non-native species.	Decommissioning
Aquatic Ecology	Survey and assessment of: • Habitats • Fish • Aquatic macrophyte • Macroinvertebrate • Freshwater invasive non-native species	Decommissioning
Marine Ecology	Assessment of marine designated sites, benthic habitats and species, marine fish, elasmobranchs, marine mammals and marine invasive non-native species.	Decommissioning
Ornithology	Survey and assessment of habitats and breeding birds including raptor survey (including eagles), diver survey and moorland bird survey.	Decommissioning
Geology and Ground Conditions	Assessment of geology and hydrogeology including ground investigations and peat assessments.	Assessment of operational effects. Decommissioning
Water Environment	Assessment of water quality and water resource, hydrological assessment and a Water Framework Directive (WFD) assessment.	Decommissioning
Flood Risk and Water Resources	Production of Flood Risk Assessment and hydrological assessment	Breach analysis. Decommissioning
Cultural Heritage	Assessment of effects on cultural heritage assets and their setting that are within the zone of theoretical visibility up to up to 3km of the Development Site Boundary.	Decommissioning

Environmental Topic	Proposed Scope of Assessment	Element Proposed to be Scoped Out
Access, Traffic and Transport	Details of the proposed access route from the principal road network, the point(s) of access to the proposed Development Site and an indication of the likely number of vehicle movements and traffic management plans required during construction.	Assessment of operational and decommissioning effects.
Noise and Vibration	Assessment of construction and operation noise and vibration.	Baseline vibration survey. Decommissioning
Socio-economics, Recreation and Tourism	Assessment of the effects on the local community, local economy, recreation and tourism in the area.	Effects on business within the proposed Development Site. Population demographics. Decommissioning
Climate	Greenhouse Gas impact assessment.	Decommissioning
Arboricultural Impact Assessment	Identify trees to be removed and will consider any impacts to retained trees including how they can be protected.	Operation and Decommissioning
Marine Physical Environment & Coastal Processes	Potential impacts of the proposed Marine Facility on physical marine and coastal processes.	Decommissioning
Shipping and Navigation	Potential impacts on current shipping and sea users from the movement of plant / material by sea and from construction of the marine facility.	Decommissioning
Commercial Fisheries	Potential impacts of the proposed Development on the receptor commercial fisheries.	Decommissioning

The matters identified for inclusion in the EIAR and also those matters identified to be scoped out as set out at table 3.2 are generally agreed by the Planning Authority. However it is considered that waste management should be specifically scoped into the EIAR to fully evaluate to what extent the objective of minimising importation of materials can actually be achieved. This can be included in the Access/Traffic and Transport section of the EIAR as it has direct relevance to the likely impact in respect of these matters, both in respect of this application, but also cumulative evaluation.

Given the amount of proposed S36, S37 and major application energy related infrastructure proposals either submitted or in the pipeline in the general North Argyll area the Planning Authority is becoming increasingly concerned about potential cumulative impacts and would request that the following matters are specifically scoped into the EIAR:

Cumulative Landscape Impacts

There is a considerable amount of major S36 and S37 energy related infrastructure applications either submitted or in the pipeline within the North Argyll Area. The Council is therefore concerned that cumulative impacts on landscape capacity to absorb all of this development is carefully evaluated as part of any EIAR submissions.

Cumulative Roads Impacts

It is noted that in this case the applicants seek to utilise a new pier and upgraded forest tracks to keep traffic off of the A819 in the proximity of Inveraray, and in transportation terms this would be welcomed if it is feasible to do so. However far greater detail on the actual engineering construction works is considered to be required as part of the EIAR in order to understand whether the importation of plant/materials and the handling or removal of any waste can realistically be undertaken with no material impacts on the road network or necessary upgrading works.

This is not considered a matter suitable for resolution through condition and should form part of the EIAR to provide confidence that promoted solutions are in fact deliverable.

A cumulative assessment in relation to other proposed major infrastructure projects in the area is also considered to be necessary at time of submission. The commitment to seek to agree these matters as set out at 14.3.1 of the Scoping Report is welcomed.

Cumulative Water Extraction and Discharge Impacts on Loch Awe

There is also a need to ensure that the cycles of water extraction to the main holding loch and that of the proposed Cruachan expansion from Loch Awe are fully considered as a potential cumulative extraction of waters to ensure that the marine environment is not adversely impacted through reduced water levels or any other related impacts.

The information contained at 12.3.1 is welcomed. However the EIAR should be required to specifically calculate maximum extraction for Balliemeanoch coinciding with maximum extraction from Loch Awe for the proposed Cruachan Extension. References to Market cycles being involved in defining such matters do not seem to clearly commit to undertaking this maximum extraction and discharge cumulative impact exercise.

I trust you find the above of assistance. Please do not hesitate to contact me if I can assist you further.

David Moore
Major Applications Team
21.09.22

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

By email to: Econsents_admin@gov.scot

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Our case ID: 300054089
Your ref: EC00003444
30 August 2022

Dear Joyce Melrose

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Balliemeanoch Pumped Storage Hydro Scheme
EIA Scoping Report (10 June 2022)

Thank you for your consultation which we received on 14 July 2022 about the above EIA Scoping Report (10 June 2022). We have reviewed the details in terms of our historic environment interests. This covers world heritage sites, scheduled monuments and their settings, category A-listed buildings and their settings, inventory gardens and designed landscapes, inventory battlefields and historic marine protected areas (HMPAs).

The West of Scotland Archaeology Service (WoSAS) will also be able to offer advice on the scope of the cultural heritage assessment. This may include heritage assets not covered by our interests, such as unscheduled archaeology, and category B- and C-listed buildings.

Proposed Development

We understand that the proposals comprise the construction of a pumped storage hydro scheme close to Lochan Airigh approximately 4.4km south of the village of Portsonachan and 9km northwest of Inveraray in Argyll and Bute.

Our View on the Principle of the Development

Based on the information provided in the EIA Scoping Report (10 June 2022), we have identified a potential for significant adverse impacts on the Inventory Garden and Designed Landscape around **Inveraray Castle** (GDL00223). We therefore recommend that mitigation by design is undertaken to reduce and avoid any impacts where possible. Any mitigation proposals should be informed by a robust environmental impact assessment (EIA) and are likely to involve measures to avoid or minimise alterations to important features of the landscape, minimising visual or other sensory impacts, and measures to reverse any impacts following completion of construction. We would welcome further engagement with the applicant and their team once more information on the nature of the proposed works and potential impacts is available.

Scope of Assessment

As indicated above, we have identified a potential for significant adverse impacts on the inventory garden and designed landscape around **Inveraray Castle** (GDL00223). There is also some potential for impacts on the setting of nearby scheduled monuments caused by the proposals. We therefore recommend that any environmental impact assessment (EIA) undertaken in support of the proposals should include an assessment of impacts on heritage assets and their settings. This assessment should be undertaken by a suitably experienced professional and meet the requirements of Scottish Planning Policy (SPP, 2014), the Historic Environment Policy for Scotland (HEPS, 2019) and associated Managing Change Guidance Notes. Guidance can also be found in the Cultural Heritage Appendix to the EIA Handbook (SNH, HES, 2018).

Any assessment should pay close attention to impacts on the below heritage assets and their settings. We have provided further information on these heritage assets in the attached **Annex.**

- **Inveraray Castle**
  (Inventory Designed Landscape, GDL00223)
- **Ballimeanoch, chapel & burial ground**
  (Scheduled Monument, SM4227)
- **Carn Dubh, Crannog E Of Inverinan**
  (Scheduled Monument, SM4175)
- **Keppochan, Cup Marked Stone 600m Ese Of**
  (Scheduled Monument, SM4186)

We recommend that impacts on the **Inveraray Castle** inventory designed landscape (GDL00223) should be assessed in accordance with our Managing Change Guidance Note on Gardens and Designed Landscapes (2016, 2020). Similarly, we would expect that any potentially significant setting impacts to be assessed in line with our Managing Change Guidance Note on Setting (2016, 2020). An assessment should also clearly demonstrate where potential impacts have been reduced or avoided and, also, consider where any residual effects may occur.

We also recommend that impacts on heritage assets and their settings should be assessed using photomontage and/or wireframe visualisations. We have provided some comments on the location and format of visualisations to be provided from the heritage assets highlighted above in the attached **Annex**. We would also be happy to engage further on this as necessary.

There is also a potential for cumulative impacts caused by the proposals in combination with other nearby existing, consented and proposed developments. We therefore recommend that cumulative impacts are described and assessed, and these should be examined using cumulative visualisations.

EIA Scoping Report (10 June 2022)

We have reviewed the EIA Scoping Report (10 June 2022) and confirm that we are broadly content with the study areas proposed for identifying potential impacts on heritage assets and their settings. The EIA Scoping Report is, however, unclear about those parts of the proposed development within the **Inveraray Castle** inventory site which are likely to have physical impacts on important elements of that landscape as well as visual, or other sensory, impacts on its character and/or setting.

These potential impacts will need to be assessed robustly, including site visits to identify and consider elements of the landscape that could be physically affected by the works and impacts on the landscape's character that could arise through visual, or other sensory, changes. The latter could include changes caused by traffic along the proposed access tracks.

Further information

Guidance about national policy can be found in our 'Managing Change in the Historic Environment' series available online at www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes. Technical advice is available on our Technical Conservation website at https://conservation.historic-scotland.gov.uk/.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is Alison Baisden and she can be contacted by phone on 0131 668 8575 or by email on Alison.Baisden@hes.scot.

Yours sincerely

Historic Environment Scotland

Annex

- **Inveraray Castle**
  (Inventory Designed Landscape, GDL00223)

  The inventory designed landscape around Inveraray Castle is one of the most grandly conceived and culturally significant designed landscapes in Scotland. The parklands, woodland plantations and key buildings within the policies have been orchestrated around the castle on a vast scale taking full advantage of the rugged natural topography and inland sea setting. The planned town of Inveraray is an integral part of the landscape.

  The proposed development appears likely to affect important component parts of the Inventory designed landscape.

  The proposed new access and improved access from the proposed pier would affect the Upper Avenue. The Upper Avenue was probably established between 1650 and 1680 and is an important drive in the designed landscape. The Upper Avenue also appears to be partially under a proposed, temporary construction compound. Proposed development here also seems likely to affect the Fisherlands area of parkland, which was drained in the 1740s. The parkland and the planting within it are important in long views south from the castle and the watchtower on Dun Na Cuaiche. These important long views and the parkland itself could be adversely affected by the proposals.

  To the north of Inveraray Castle, it is proposed to upgrade an existing track. This appears likely to be at least partly along the line of the Grand Approach from Garron Lodge, created around 1775. The upgraded access would also cross the earlier Oak Walk to the immediate north of Duchess Louise Wood. The Oak Walk was the primary axial route north through the policies and terminated in an eye-catching doocot built in 1747.

  An ability to understand, appreciate and experience the design, form and character of the different routes, approaches, structures and areas of the landscape is fundamental to understanding its development and nationally important significance.

  It is important that potential impacts of the proposed development on component parts of the landscape are very carefully considered and mitigated where appropriate. Impacts on important features, views and the character of the landscape should be avoided where possible. Mitigation should be developed to

minimise impacts where they cannot be avoided. Any temporary development that causes adverse impacts should be reversed following the construction period.

If the assessment identifies potential for significant visual impacts on the Inventory Designed Landscape these should be illustrated by suitable visualisations. We would be happy to discuss this further once more information on the nature of the proposed works and potential impacts is available.

- **Ballimeanoch, chapel & burial ground**
(Scheduled Monument, SM4227)

  This monument is a fairly typical Argyll chapel site, consisting of a single cell, sub-rectangular building of dry-stone construction, which remains in surprisingly good condition, set within a roughly rectangular enclosure bounded by a natural ridge and by low banks of mixed turf and stone. The chapel sits within a small bowl-shaped terrace with the main view outwards being to the west/southwest. As the proposed location of the Tailpond outlet/inlet might be visible in this direction, the impact of this upon the setting of this monument should be considered within any EIA undertaken in support of the proposals. This assessment should be supported by visualisations where appropriate.

- **Carn Dubh, Crannog E Of Inverinan**
(Scheduled Monument, SM4175)

  This is one of the largest crannogs in Loch Awe. It is situated very close to the shore of a shallow bay off Inverinan. Roughly circular in shape, the crannog has a strongly convex profile, and unlike most of the others in this loch is rarely completely submerged, even in winter. It is unclear from the ZTV maps if the proposed location of the tailpond outlet/inlet would be visible from the crannog. A visualisation from the crannog looking towards the tailpond outlet/inlet location would help in determining any potential impact on the setting of this monument.

- **Keppochan, Cup Marked Stone 600m Ese Of**
(Scheduled Monument, SM4186)

  This enormous, almost trapezoidal, boulder is set towards the edge of a grassy, bracken-infested terrace above the B840 public road, overlooking the Pass of Brander, the northeast end of Loch Awe, and looking across to the massif of Ben Cruachan. The boulder measures about 2m by 2.5m and stands to about 1m in height. The upper surface is slightly convex with 27 cupmarks, 3 of them quite faint. 10 of the cupmarks, including the deepest one, appear to lie in a sinuous line.

As part of the development, it is proposed to upgrade an access track in the vicinity of this monument. To the south of the stone is an area of open hill ground, the track in question passes through forestry in this area which should shield the view of any works from the monument. However, aerial photography shows recent felling in this area meaning that the upgrade works here have the potential to impact the setting of the stone. Forestry is subject to seasonal changes, felling, windblow, etc. and should not be relied upon as a mitigatory factor when considering setting impacts.

Historic Environment Scotland
30 August 2022

NatureScot
Scotland's Nature Agency
Buidheann Nàdair na h-Alba

By email to: Econsents_Admin@gov.scot

9 September 2022
Your ref: ECU00003444
Our ref: CEA167720

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 BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME, ARGYLL AND BUTE

Thank you for your consultation dated the 14 July 2022 requesting comments on the scope of the Environmental Impact Assessment Report for the proposed Balliemeanoch Pumped Storage Hydro Scheme (hereafter referred to as 'the Proposal').

We understand the Proposal will consist of superficial and below ground infrastructures which will be constructed over a 5-year period. The superficial infrastructures include: new reservoir in the upper part of the Allt Beochlich catchment (up to 58Mm3), impounds by a main embankment of 110m (over 41ha) and two smaller embankments of 15 and 20m (each occupying less than 5ha). Indicative material volumes required for the construction of the embankments is 4.6Mm3 and is stated as to be sourced from underground activities and the impounded area of the headpond. The Proposal will also involve the construction of several access tracks including upgrading existing tracks within the Blarghour Wind Farm area and the creation of new connecting tracks, temporary compound area (total areas 73,000 m2), and additional access road, jetty and permanent development around the shore near Inveraray. The below ground infrastructure will be developed by tunnelling and include: a power cavern (volume of material 325,000 m3), tail and head race tunnels (length 600m and 2800m), and power tunnel (length around 2,500m) for a total volume of material excavated of 300,000m3.

1. Summary

We consider that the key issues of interest to NatureScot to be addressed in detail as part of the Environmental Impact Assessment (EIA) process to include:

- Impacts on nationally important carbon-rich soils, deep peat and priority peatland habitat;
- Landscape and visual impacts, including impacts on locally and nationally important landscapes and cumulative impacts;
- Impacts on the Glen Etive and Glen Fyne Special Protection Area (SPA) for breeding golden eagles; and
- Impacts on the Upper Loch Fyne and Loch Goil Nature Conservation Marine Protected Area (MPA).

Our initial advice, based on our current understanding of the Proposal, and currently available documents, is that it has the potential to affect nationally important peatland habitat on this site. If adverse impacts cannot be overcome by siting, design or mitigation, **we could object to this Proposal.**

The Proposal could potentially result in significant adverse effects and cumulative effects in relation to the highly sensitive landscape of the nationally important Loch Etive Mountains Wild Land Area (WLA 09). Should effects on this WLA be found to significantly affect the qualities of this landscape, **we may object to this Proposal in relation to effects on these interests.**

We provide further advice on the scope of the EIA and comments on the submitted Scoping Report in Annex 1 of this letter.

2. Conclusion

Whilst we are supportive of the principle of renewable energy, our advice is given without prejudice to a full and detailed consideration of the impacts of the Proposal if it is submitted as a formal application. We look forward to working with the Applicant and ECU further on this Proposal. As the Proposal currently stands, it is likely to raise issues of national interest which **may lead to an objection from NatureScot**.

Please do not hesitate to contact me should you have any queries on our advice above.

Yours faithfully

Ruari Dunsmuir

Operations Officer – West
ruari.dunsmuir@nature.scot

Annex 1 – Our advice on the scope of the EIA and comments on the Scoping Report

1. Peat, peatland habitat and carbon rich soils

The scoping layout indicates the site is underlain with Class 2 peatlands which are nationally important carbon rich soils, deep peat and priority peatland habitats.

Scottish Planning Policy (SPP) identifies nationally important carbon-rich soils, deep peat and priority peatland habitat as "areas of significant protection". SPP also identifies that further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation. Although such consideration is primarily aimed at wind farms, paragraph 169 of SPP states that "*proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms*".

As such, there is a requirement for detailed peat and vegetation surveys to be undertaken to ascertain the quality and distribution of peatland and priority habitats across the site as per NatureScot guidance (https://www.nature.scot/doc/advising-carbon-rich-soils-deep-peat-and-priority-peatland-habitat-development-management#Assessing+the+impacts+of+development+on+carbon-rich+soils,+deep+peat+and+peatland).

The Applicant will therefore need to demonstrate, through the EIA, that the Proposal can be built on this site without significant loss or damage to these nationally important interests. The EIA Report should include how any impacts to these interests will be avoided, mitigated and/or compensated. Where adverse impacts cannot be overcome, we highlight that we could object to this Proposal. Details of all mitigation, including a Peatland Management Plan and a Habitat Management Plan should be included in the EIA Report. Guidance on what to include within a Habitat Management Plan can be found on our website at https://www.nature.scot/doc/guidance-planning-development-what-consider-and-include-habitat-management-plans

To help NatureScot assess potential impacts, and their significance, the attached table should be completed and submitted as part of the EIA Report. The Applicant should contact NatureScot if requiring any advice on completing this form**.**

For further information on what we would expect to see presented within an EIA Report, please see our response (11 September 2018) to the adjacent consented Blarghour Wind Farm (ECU reference: EC00005267). We would highlight that NatureScot objected to the wind farm due to impacts on nationally important carbon-rich soils, deep peat and priority peatland habitat.

Proposed scope of EIA

As stated in *Table 3.2 Summary,* operational and decommissioning effects have been scoped out as a topic for further assessment at the EIA Stage. A decision on the operational and decommissioning phases should be informed following the assessment surveys. During the operational phase, significant impacts on peat resources and habitats are still expected from long term change in hydrology over the whole catchment area and the possible effect of the change in reservoir water level on adjacent peatland.

We therefore advise that it is premature to scope out this topic from the EIA Report. A peat depth survey, a Peatland Management Plan and Habitat Management Plan will be required for the site.

Based on the Scoping Report information, we can estimate that over 200ha of land will be capped during the creation of the headpond and embankments resulting in a total loss of habitats and soils functions.

Baseline information available for this area (Blarghour Wind Farm EIA Report), shows the presence of large extent of flushes and blanket bog over an extensive area of deep peat locally in excess of 3m.

As stated in *Table 3.2 Summary,* traffic and transport operational and decommissioning effects, have also been scoped out. It would be useful to know the plan for maintaining access tracks and/ or if there is plan to remove tracks during decommissioning. Indication of borrow pits and whether they will be retained for ongoing maintenance should also be detailed and assessed.

We are seeing a growing number of applications seeking to retain temporary access tracks as permanent. Constructed tracks can place considerable pressure on landscapes and habitats, introducing significant new features into otherwise 'natural' landscapes and affecting fragile upland plants, animals, landforms and soils. They also have the potential to alter drainage patterns, potentially resulting in serious erosion and loss of stored carbon, the generation of surplus peat and damage to the water environment. Therefore consideration is needed with regards to route planning, construction, landscape impacts, biodiversity impacts, and restoration of access tracks in order to avoid/ mitigate against the potential impacts. Additional consideration is required for tracks within/ near disturbance distance of specially protected bird species. Please see our guidance on Constructed tracks in the Scottish Uplands (https://www.nature.scot/sites/default/files/Publication%202015%20-%20Constructed%20tracks%20in%20the%20Scottish%20Uplands.pdf)

Effects on hydrology of peat and associated peatland habitats

The expected impact of the change in level of the new headpond on the peat resources and peatland during construction and operation is not directly covered in the Scoping Report. The water environment impact assessment primarily covers issues related to changes in flow patterns, flooding and water quality for both surface and groundwater features.

The impacts of construction on groundwater dependent terrestrial ecosystems (GWDTE) receptors, peatland habitats, and peat resources is likely to include a loss or a degradation of their hydrological, hydromorphological and ecological characters, associated with the issue of water quality on and off-site. Slope/ embankment instability risks will need to be considered as this may trigger landslide and flooding events during and post construction that will impact on adjacent habitats. A prolonged drought period post construction should also be considered. Impacts on lower catchment peatland of permanent abstraction is also not quantified at present. Additionally, the lowering of the reservoir water level could exposed peat material which will have been sealed or reused/ reinstated during construction of the reservoir and embankments. This could lead to increase greenhouse gas (GHG) emissions from oxidised peat or increase risk of particulate transport from eroded/ leached material especially if those were reused on site.

Although many of these issues fall with the remit of SEPA, the water resource assessment (Section 12.3.1) should also consider the wider impact of the isolation of the upper part of Allt Beochlich on peat and peatland habitats. Change in flow curves and impacts on the water table level from the reservoir and streams during and post construction may impact on the integrity of the peat mass and function of peatland habitats.

Surveys

As stated in *Section 6. Terrestrial ecology*, habitat and NVC surveys have been carried out in 2021. These should include a sufficient area surrounding the Proposal so that impact of the hydrological unit of the blanket bog can be properly determined.

Section 10.5 Peat Assessment mistakenly identifies Peat *Landscape* Hazard and Risk Assessments guidance. However, aside from this, the proposals under this section are appropriate for assessing the impact on peat. It should be added that the peat resource beyond the headpond, access tracks and tunnelling should be included as there could be hydrological connection between these areas. If peat is to be removed during construction it is not clear from where nor the extent and an assessment of the dewatering this removal will have on the surrounding peat and peatland habitats, in conjunction with tunnelling (Section 10.8.1) should be properly assessed.

Climate change/ Greenhouse gas (GHG) emissions

Section 17. Climate does not appear to include loss of GHG associated with change or damage to soil/ peat and the carbon sequestration potential of peatland habitats. The loss of 200 ha of land occupied by peat soil and peatland is not insignificant. This could equate to a loss of 20,000m3 of peat (200 ha at average of 1m deep) which is roughly equivalent to 3,500t of CO2e or roughly to 1% of Scottish annual carbon reduction targets (Table 17.3 Scottish carbon reduction target).

Cumulative impacts

The Applicant has engaged with the developers of the Blarghour Wind farm (consented) on the interface between the two developments. This is more than a proximity issue with the Proposal extending onto the consented Blarghour Wind Farm development including the reuse and possible upgrade of the Three Bridges access track. The Proposal will also cross the proposed Creag Dhubh to Inveraray 275 kV OHL (ECU reference: ECU00003442) at this location and further north at the Old Military Road access track.

We advise that proper consideration is given to the assessment of potential cumulative impacts from the developments on the restoration and mitigation measures already in place under the Blarghour Land Management Plan (LMP). The LMP is subject to a condition attached to the deemed planning permission of Blarghour wind farm (ECU reference: EC00005267). Condition 9(1) states – "*No development shall commence until a Land Management Plan has been submitted to and approved in writing by the Planning Authority, in consultation with NatureScot*". The specific area in question currently contains 95ha of mature non-native conifer plantation of low biodiversity value and limited foraging opportunity for bird species. It is proposed to fell the conifers and replant with low density native broadleaves with a mosaic of open ground to provide a wider variety of foraging habitat for golden eagle and black grouse. There could be potential for collaboration between developments with regard to the Peatland/ Habitat Management Plan in order to maximise potential benefits to the natural heritage and mitigate/ compensate impacts. Given the scale of the Proposal and the potential to affect nationally important peatland habitat on this site we could object to this Proposal if adverse impacts cannot be overcome by siting, design or mitigation.

2. Landscape and visual

The Proposal would be located around 13km to the south of the Loch Etive Mountains Wild Land Area (WLA 09), and around 9km to the west of the Ben Lui Wild Land Area (WLA 06).

Extent of visibility

The ZTVs provided (Figures 5.1-5.3) show that there would be theoretical visibility of the Proposal, relating to landscapes of national interest, over the southern extents of the Loch Etive Mountains Wild Land Area (WLA 09). The ZTVs show that there would be no predicted visibility within the 15km study area over the Ben Lui Wild Land Area (WLA 06). However, the wider extents of the ZTV shows visibility of the headpond over Beinn a' Chleibh to the south west of Ben Lui within WLA 06 and given this pattern of visibility we predict potential visibility over the surrounds and summit of Ben Lui, out with the study area.

Effects on Wild Land Areas (WLAs)

Given this visibility of the Proposal, potential effects on the WLAs will require to be fully understood. The Scoping Report has not included WLAs on the landscape designations or site constraints mapping (Figures 5.4 and 2.1) and does not state the inclusion of a Wild Land Assessment within the scope of the proposed assessment. At this stage we would advise that effects on WLAs should not be scoped out until we have a better understanding of the potential for effects on the WLAs. To allow us to better understand the potential effects from the Proposal on the key attributes and qualities of WLAs 06 and 09 and to inform whether a Wild Land Assessment would be required, in the first instance, the following wirelines would assist:

- Ben Cruachan;
- Stob Garbh;
- Ben Eunaich; and
- Beinn a' Chleibh/ Ben Lui

We advise that further consideration is given to the inclusion of wirelines where there is predicted theoretical visibility of the Proposal over the Loch Etive Mountains and Ben Lui WLAs to inform whether a Wild Land Assessment will be required.

Cumulative effects

We advise, if a Wild Land Assessment is deemed to be required, cumulative effects on WLAs 06 and 09 be included. When considering which proposals to include within the cumulative assessment (Table 3.6 Cumulative Developments), we consider that Argyll and Bute Council are best placed to provide advice.

Lighting requirements

Paragraph 2.7.4.4 of the Scoping Report states the requirement for external lighting of the Proposal, around the access compound and entry gate. If a Wild Land Assessment is deemed to be required, we advise that effects from lighting on WLA 09 be considered, given predicted visibility of the Proposal from this area and the high sensitivity of WLAs to the effects of lighting. There may also be a requirement for night-time visualisations. It should also be noted that the cumulative effects of lighting may also be required given the potential proposed lighting of Blarghour Wind Farm variation (ECU reference: ECU00004481). The above listed wirelines will assist us with understanding the requirement for a wild land night-time assessment.

Viewpoints and photomontages

The additional wirelines as listed above will inform if further viewpoints are required. Photomontages should clearly show the relevant elements of the scheme i.e. impoundment dam/ embankment, impounded waterbody, drawdown area, tail pond inlet/ outlet, substation, access tracks and downdraw scar. Impoundments can result in variable water levels causing a drawdown scar, which is likely to have increased visibility from a distance, creating a new visual focus in the landscape. Impacts can arise from the direct visual effect of this new feature, or from the perceived effects on wild land quality. Assessment of the landscape and visual impact of the likely drawdown maximum and minimum levels (natural and managed) and the duration of the maximum and minimum levels and the timing (season) should be considered.

3. Ornithology

Glen Etive and Glen Fyne Special Protection Area

The Proposal lies close to the Glen Etive and Glen Fyne Special Protection Area (SPA) protected for its breeding golden eagle (*Aquila chrysaetos*). Further information can be found on the NatureScot website at https://sitelink.nature.scot/site/10113

The site's status means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (the 'Habitats Regulations') apply or, for reserved matters, The Conservation of Habitats and Species Regulations 2017. Consequently, the Energy Consents Unit is required to consider the effect of the Proposal on the SPA before it can be consented (commonly known as Habitats Regulations Appraisal). The NatureScot website has a summary of the legislative requirements (https://www.NatureScot.scot/professional-advice/safeguarding-protected-areas-and-species/protected-species/legal-framework/habitats-directive-and-habitats-regulations).

Given the location of the Proposal close to the Glen Etive and Glen Fyne SPA, the EIA Report will need to include a robust assessment of the impacts on golden eagle, not only in relation to the SPA, but also in the context of its Natural Heritage Zone (NHZ) 14 population and transient birds. To help you do this, we suggest that satellite tag data for the two golden eagles in the vicinity of the Proposal area should be obtained from Natural Research Projects Ltd.

The Proposal is located within a golden eagle territory which has only recently become a single territory, historically having been two separate territories. Therefore the Applicant should consult with the Argyll Raptor Study Group with regards to nest sites, alternative nest sites, and recent breeding productivity, in order to gain a clearer understanding of the situation.

Potential effects of displacement/ loss of territory as a result of the Proposal need to be fully considered and whether the Proposal risks territory viability. In light of such, we would highlight the requirement for a sufficient level of detail regarding construction methods and the likely requirement for a Species Protection Plan as part of the EIA Report given the location of the Proposal and surrounding developments.

In addition to golden eagle; white-tailed eagle, other Schedule 1 raptors, and black grouse are likely to be the main species of interest on the site. These should be assessed both for onsite impacts and also cumulative impacts from other operational and consented development at the relevant NHZ level. In this instance we believe that the area surrounding the Proposal can be described as a development "hotspot" with clusters of developments at various stages of planning, including, but not limited to, the Blarghour, Car Duibh (ECU reference: ECU00003254), and Ladyfield (ECU reference: ECU00003291) wind farms which are in very close proximity to the Proposal, as well as the Creag Dhubh to Inveraray 275 kV OHL (ECU reference: ECU00003442), Creag Dhubh – Dalmally 275 kV OHL (ECU reference: ECU00002199), and Blarghour connection 132Kv OHL.

Vantage point survey

We note that vantage point (VP) locations are mostly located on areas of high predicted eagle activity, according to the Golden Eagle Topographical (GET) model, and within the site boundary, which may affect bird behaviour and reduce our confidence in the survey results. It is important to minimise the observer's effect on bird behaviour. For this reason VPs are best located outside the survey area where possible. Where VPs are located within the survey area, they should not be used simultaneously with other VP locations which overlook them as the presence of an observer either sitting at or moving to/ from the VP will probably affect bird behaviour. In order to minimise disturbance, VPs should not be located near to

sensitive sites for target species, i.e. nest, roost or lek sites. Observers should try to position themselves inconspicuously so as to minimise their effects on bird movements. Care also needs to be taken not to locate observation points in locations that may lie directly between the site and a roost or nest site of a key target species, as this can seriously influence the behaviour of birds to be surveyed. Guidance can be found on our website at https://www.nature.scot/doc/recommended-bird-survey-methods-inform-impact-assessment-onshore-windfarms

4. Upper Loch Fyne and Loch Goil Nature Conservation Marine Protected Area (NC MPA)

The Proposal lies within the Upper Loch Fyne and Loch Goil Nature Conservation Marine Protected Area (NC MPA) selected for its ocean quahog aggregations; burrowed mud; flame shell beds; horse mussel beds and sublittoral mud and specific mixed sediment communities. Further information can be found on the NatureScot website at https://sitelink.nature.scot/site/10424

The site's status means that the requirements of the Marine (Scotland) Act 2010 apply. Consequently, Energy Consents Unit is required to consider the effect of the Proposal on the NC MPA before it can be consented.

The protected features are widely distributed throughout the NC MPA. Burrowed mud is widely distributed throughout the loch systems with high numbers of fireworks anemones (a component species of the burrowed mud feature) and has been consistently recorded since the 1980s. Ocean quahog records are scattered throughout Upper Loch Fyne with a smaller number from Loch Goil. Some component habitats of the sublittoral mud and mixed sediment communities feature have been recorded at the head of Loch Fyne previously. For full details of priority marine features please see https://www.nature.scot/professional-advice/protected-areas-and-species/priority-marine-features-scotlands-seas

We consider that the Proposal is capable of affecting the protected features by, but not limited to:

- Loss of benthic habitats and species, including priority marine features, under the direct footprint of the marine structures (e.g. pier piles);
- Disturbance of habitats and species, including priority marine features, in areas subject to dredging (if required);
- Changes in water quality from suspended sediments generated during dredging (if required);
- Abrasion from moorings and/ or fixed structures associated with the Proposal; and
- Potentially from the impact from ballast water and the introduction/spread of non-native species.

As such, any direct or indirect impacts to the protected features will need to be carefully considered as part of the EIA process. We recommend that the following additional information is obtained:

- A video seabed survey of the development footprint should be carried out to check for the presence and extent of any protected features of the Upper Loch Fyne and Loch Goil NC MPA. If there is potential to micro-locate the Proposal, there will be a requirement to extend the survey beyond the immediate footprint. The video will need to be of sufficient quality to identify biotopes/species and their extent to help determine whether the impacts are capable of affecting the protected features other than insignificantly;
- Provide mitigation measures to minimise the siltation and debris from construction, loading and transport and address any impacts from ballast water; and
- Provide information on vessel movements such as the frequency of vessel visits.

5. Ecology (including wild deer)

Wild deer

We note there is no inclusion in the Scoping Report for impacts to wild deer and advise impacts to deer should be considered further. As wild deer use the development site, the Applicant should assess the implications of the Proposal on deer and the indirect impacts on other interests (e.g. habitats, neighbours, roads, etc.). This should be presented in the assessment as part of the EIA Report, even if the conclusion is that impacts are unlikely. The assessment may indicate the need for management to avoid adverse impacts. If so, we advise the need for a deer management statement, either as part of a Habitat Management Plan or as a stand-alone document. For some sites, the modification of an existing Deer Management Plan covering a wider area may be more appropriate. We do not expect developers to exert control over land that they have no rights over. However, we encourage a collaborative approach with neighbouring landowners and managers to avoid adverse impacts on the interests of all parties. A deer management statement may be included amongst the EIA Report's submitted mitigation measures, or produced to comply with a planning condition. Please see our guidance on what to consider and include in deer assessments and management at development sites (https://www.nature.scot/doc/guidance-planning-and-development-what-consider-and-include-deer-assessment-and-management).

Marine mammals

As stated in *Section 8.5 Likely mitigation measures*, "*where impact piling is required for the construction of the marine facility the project will adopt JNCC mitigation protocols to minimise disturbance to marine mammals from piling sound*". It should be noted that the referred to protocol does not document measures to mitigate disturbance effects, but has been developed to reduce to negligible levels the potential risk of injury or death to marine mammals in close proximity to piling operations. The JNCC mitigation protocol should be used in conjunction with 'The Protection of Marine European Protected Species from Injury and Disturbance: Guidance for Scottish Inshore Waters' available at https://www.gov.scot/publications/marine-european-protected-species-protection-from-injury-and-disturbance/.

Several marine mammals are known to commonly occur in the outer Loch Fyne area including harbour porpoise (*Phocoena phocoena*), bottlenose dolphins (*Tursiops truncatus*), grey seal (*Halichoerus grypus*) and harbour seal (*Phoca vitulina*). In our opinion, there is a risk that disturbance could occur, even with the proposed mitigation. As such, the requirement for an EPS licence should be discussed with Marine Scotland. Further information can be found on our website: https://www.nature.scot/professional-advice/protected-areas-and-species/licensing/species-licensing-z-guide/dolphins-whales-and-porpoises-and-licensing

Invasive non-native species

We are supportive of the aim to develop and implement a site specific Biosecurity Management Plan in order to manage the risks associated with invasive non-native species. The plan should extend to both terrestrial and marine invasive species.

Ecology surveys

We note that surveys have been conducted in 2019 and 2021. For information, we now have our protected species advice on our website as standing advice notes. These should be referred to for further advice in relation to survey requirements, mitigation and licensing https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-protected-species

A reminder that species surveys and licence requirements are required with the application, before planning consent is issued, particularly in relation to European Protected Species. Again, there is guidance in the species advice notes above.

Positive effects on biodiversity

We look forward to reviewing potential opportunities for positive effects on biodiversity from the development. Our current understanding of this in the emerging Fourth National Planning Framework regarding national, major and EIA development - planning applications will need to demonstrate enhancement in addition to mitigation. How applicants demonstrate enhancement will be left to the applicant and planning authority. We would encourage enhancement options to be sensible, ambitious in light of the current biodiversity crisis but deliverable, with long term objectives that aim for a balance of minimising onerous ongoing site management with achieving good result for native habitats. In this context developments should aim to deliver more than just mitigation of negative effects and explore whether delivery of positive effects might be achieved through mechanisms out with the planning system. As mentioned previously there are a number of developments in close proximity which may present an opportunity for a collaborative approach to landscape scale habitat improvement/ restoration for the benefit of a number of species. You may find some ideas on our biodiversity webpage at https://www.nature.scot/scotlands-biodiversity.

6. General scoping advice

Although aimed at onshore wind farm development, the Applicant may find aspects of our general pre-application and scoping advice for onshore wind farms helpful (https://www.nature.scot/doc/general-pre-application-and-scoping-advice-onshore-wind-farms). While this provides guidance on the issues that developers and their consultants should consider for wind farm developments, it also provides advice on other considerations which should be taken into account in the EIA Report. When formatting the EIA Report for submission, the following requirements should be noted:

- For ease of use, text chapters and appendices of EIA Report should be presented on A4 paper (rather than A3);
- Landscape figures to be provided in a ring binder (rather than being spiral or otherwise bound), for ease of use during site visits;
- A full hard copy of the landscape figures should be sent directly to the NatureScot case officer – all other supporting information can be electronic but please ensure that file sizes are <10MB per pdf;
- Ensure that electronic file names clearly indicate their content (e.g. (name) - LVIA Figure (number of VP) – VP2 (name of VP);
- Full survey details including raw data, viewshed maps and flight maps with labelled flightlines showing the flights banded into below, at and above collision risk height and referenced to a table of flight data, etc., should be presented in the EIA Report. Information and assessment of direct and indirect impacts (including cumulative), along with details of any mitigation should also be presented;
- Sensitive species information can be presented in a confidential annex with restricted circulation. Advice on how to deal with sensitive information can be found on our website (https://www.nature.scot/doc/environmental-statements-and-annexes-environmentally-sensitive-bird-information).

All of our current standing advice for planners and developers is listed on our website (https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents)

Summary Table in relation to Peatland National Importance

Infrastructure	Grid Reference (citing EIA Report source)		Peat Depth (cm) (citing EIA Report source)	Phase 1 Habitats (citing EIA Report source)	NVC (citing EIA Report source)	Altitude (m)	National Importance (Yes/No) [1]
	Easting	Northing					

[1] This can be informed by reference to: *Carbon-rich soils, deep peat and priority peatland habitat mapping Consultation analysis report* https://www.nature.scot/sites/default/files/2018-05/Carbon%20and%20Peatland%20map%20consultation%20analysis%20report.pdf

SEPA
Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Our ref: 5878
Your ref: ECU00003444

Energy Consent Unit
The Scottish Government

If telephoning ask for:
Aden McCorkell

Sent by email to: Econsents_Admin@gov.scot

12 August 2022

Dear Joyce Melrose

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Electricity Act 1989 - Section 36
Planning Application: ECU00003444
Construct a Pumped Storage Hydro scheme
Close to Lochan Airigh approx. 4.4 km to south of Portsonachan, and 9km northwest of Inverary, Argyll and Bute

Thank you for consulting SEPA on the scoping opinion for the above development proposal by way of your email received on 8 July 2022.

Advice to the planning authority

We consider that the following key issues must be addressed in the Environmental Impact Assessment process. To **avoid delay and potential objection,** the information outlined below and in the attached appendix must be submitted in support of the application.

a) Map and assessment of all engineering activities in or impacting on the water environment including proposed buffers, details of any flood risk assessment and details of any related CAR applications.

b) Map and assessment of impacts upon Groundwater Dependent Terrestrial Ecosystems and buffers.

c) Map and assessment of impacts upon groundwater abstractions and buffers.

d) Peat depth survey and table detailing re-use proposals.

e) Map and table detailing forest removal.

f) Map and site layout of borrow pits.

g) Schedule of mitigation including pollution prevention measures.

h) Borrow Pit Site Management Plan of pollution prevention measures.

Angus Smith Building
6 Parklands Avenue, Eurocentral,
Holytown, North Lanarkshire ML1 4WQ
tel 01698 839000 fax 01698 738155
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i) Decommissioning statement.

Further details on these information requirements and the form in which they must be submitted can be found in the attached appendix. We also provide site specific comments in the following section which can help the developer focus the scope of the assessment.

1. Site specific comments

- Detailed peat depth surveys will be required in line with the Scottish Government's Guidance on Developments on Peatland - Peatland Survey (2017) to inform the layout (including temporary laydowns, construction compounds, substations and access tracks etc). Please refer to Paragraph 3 in the appendix below for further submission requirements relating to peat. We would strongly encourage the applicant to submit the peat depth survey, overlaid with the proposed infrastructure in draft form, prior to final submission. It would be helpful if the peat depth survey is presented with clearly contrasting colours between deep peat (over 1m) and non-deep peat (areas under 1m).

- Excavated catotelmic peat should be re-used within a functional peatland system, meaning that it should be locked underground, below the water table and covered with reinstated turves. The proposals will need to address how excavated peat will be re-used appropriately, and we would encourage early dialogue on this. There may be opportunities for peat-reuse nearby but outwith the site boundary (such as eroded peat hags in need of restoring, or historic peat cuttings that could be re-instated with excavated peat) and these should also be considered as part of this assessment.

- We would expect the National Vegetation Classification (NVC) survey to demonstrate that all areas of pristine or near natural peatland habitat is avoided through design and compensatory restoration and additional enhancement provided to address any direct or indirect impacts to the environment. This may be through a Habitat Management Plan or Peatland Management Plan.

- We note that there are two access tracks proposed, both of which will require a substantial amount of new track to be constructed. We do not support this, as access tracks should be kept to a minimum, and it is not clear why two access tracks are required to the same location. Alternatives should be considered, and a single track considered to reduce overall footprint and impacts on the environment.

- We would expect floating tracks to be designed over areas of deep peat. Floating tracks would mitigate against impacts on peat as well as the hydrological impacts of any Ground Water Dependent Terrestrial Ecosystems and we would therefore like to see floated tracks throughout the whole development unless proven technically infeasible.

- All tracks should be kept a minimum 10m away from any waterbody, with the exception of watercourse crossings and connecting tracks should minimise watercourse crossings. As long as watercourse crossings are designed to accommodate the 1 in 200 year flow and other infrastructure is located well away from watercourses we do not foresee a need for detailed information on flood risk to be provided. All watercourse crossings must be designed as traditional style bridges or bottomless arched culverts.

- Any temporary infrastructure (i.e. laydown areas and construction compounds) which is to be left on site must be justified in line with SEPA's Guidance on the life extension and

decommissioning of onshore wind farms. This contains a hierarchy of environmental impact, for which we would expect any redundant infrastructure to be considered and justified.

Regulatory advice for the applicant

2. Regulatory requirements

2.1 All new reservoirs are required to be registered with SEPA under the Reservoirs Act 2011. Please see our website for further information.

2.2 Authorisation is required under CAR to carry out engineering works in or in the vicinity of inland surface waters (other than groundwater) or wetlands. Inland water means all standing or flowing water on the surface of the land (e.g. rivers, lochs, canals, reservoirs). Proposed crushing or screening will require a permit under The Pollution Prevention and Control (Scotland) Regulations 2012. It is recommended that you have pre-application discussions with a member of the regulatory team in your local SEPA office.

2.3 Details of regulatory requirements and good practice advice for the applicant can be found on the Regulations section of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the regulatory services team in your local SEPA office at AHSH@sepa.org.uk.

If you have any queries relating to this letter, please contact me by e-mail at planning.north@sepa.org.uk.

Yours sincerely

Aden McCorkell
Senior Planning Officer
Planning Service

ECopy to: Joyce.Melrose@gov.scot

Disclaimer
This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found on our website planning pages.

Appendix 1: Detailed scoping requirements

This appendix sets out our scoping information requirements. There may be opportunities to scope out some of the issues below depending on the site. Evidence must be provided in the submission to support why an issue is not relevant for this site in order **to avoid delay and potential objection**.

If there is a delay between scoping and the submission of the application then please refer to our website for our latest information requirements as they are regularly updated; current best practice must be followed.

We would welcome the opportunity to comment on the draft submission. As we can process files of a maximum size of only 25MB the submission must be divided into appropriately named sections of less than 25MB each.

1. Site layout

1.1 All maps must be based on an adequate scale with which to assess the information. This could range from OS 1: 10,000 to a more detailed scale in more sensitive locations. Each of the maps below must detail all proposed upgraded, temporary and permanent site infrastructure. This includes all tracks, excavations, buildings, borrow pits, pipelines, cabling, site compounds, laydown areas, storage areas and any other built elements. Existing built infrastructure must be re-used or upgraded wherever possible. The layout should be designed to minimise the extent of new works on previously undisturbed ground. For example, a layout which makes use of lots of spurs or loops is unlikely to be acceptable. Cabling must be laid in ground already disturbed such as verges. A comparison of the environmental effects of alternative locations of infrastructure elements, such as tracks, may be required.

2. Engineering activities which may have adverse effects on the water environment

2.1 The site layout must be designed to avoid impacts upon the water environment. Where activities such as watercourse crossings, watercourse diversions or other engineering activities in or impacting on the water environment cannot be avoided then the submission must include justification of this and a map showing:

a) All proposed temporary or permanent infrastructure overlain with all lochs and watercourses.

b) A minimum buffer of 50m around each loch or watercourse. If this minimum buffer cannot be achieved each breach must be numbered on a plan with an associated photograph of the location, dimensions of the loch or watercourse and drawings of what is proposed in terms of engineering works.

c) Detailed layout of all proposed mitigation including all cut off drains, location, number and size of settlement ponds.

2.2 If water abstractions or dewatering are proposed, a table of volumes and timings of groundwater abstractions and related mitigation measures must be provided.

2.3 Further advice and our best practice guidance are available within the water engineering section of our website. Guidance on the design of water crossings can be found in our Construction of River Crossings Good Practice Guide.

2.4 Refer to Appendix 2 of our Standing Advice for advice on flood risk. Watercourse crossings must be designed to accommodate the 0.5% Annual Exceedance Probability (AEP) flows, or information provided to justify smaller structures. If it is thought that the development

could result in an increased risk of flooding to a nearby receptor then a Flood Risk Assessment must be submitted in support of the planning application. Our Technical flood risk guidance for stakeholders outlines the information we require to be submitted as part of a Flood Risk Assessment. Please also refer to Controlled Activities Regulations (CAR) Flood Risk Standing Advice for Engineering, Discharge and Impoundment Activities.

3. Disturbance and re-use of excavated peat and other carbon rich soils

3.1 Scottish Planning Policy states (Paragraph 205) that "Where peat and other carbon rich soils are present, applicants must assess the likely effects of development on carbon dioxide (CO_2) emissions. Where peatland is drained or otherwise disturbed, there is liable to be a release of CO_2 to the atmosphere. Developments must aim to minimise this release."

3.2 The planning submission must a) demonstrate how the layout has been designed to minimise disturbance of peat and consequential release of CO_2 and b) outline the preventative/mitigation measures to avoid significant drying or oxidation of peat through, for example, the construction of access tracks, drainage channels, cable trenches, or the storage and re-use of excavated peat. There is often less environmental impact from localised temporary storage and reuse rather than movement to large central peat storage areas.

3.3 The submission must include:

a) A detailed map of peat depths (this must be to full depth and follow the survey requirement of the Scottish Government's Guidance on Developments on Peatland - Peatland Survey (2017)) with all the built elements (including peat storage areas) overlain to demonstrate how the development avoids areas of deep peat and other sensitive receptors such as Groundwater Dependent Terrestrial Ecosystems.

b) A table which details the quantities of acrotelmic, catotelmic and amorphous peat which will be excavated for each element and where it will be re-used during reinstatement. Details of the proposed widths and depths of peat to be re-used and how it will be kept wet permanently must be included.

3.4 To avoid delay and potential objection proposals must be in accordance with Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste and our Developments on Peat and Off-Site uses of Waste Peat.

3.5 Dependent upon the volumes of peat likely to be encountered and the scale of the development, applicants must consider whether a full Peat Management Plan (as detailed in the above guidance) is required or whether the above information would be best submitted as part of the schedule of mitigation.

3.6 Please note we do not validate carbon balance assessments except where requested to by Scottish Government in exceptional circumstances. Our advice on the minimisation of peat disturbance and peatland restoration may need to be taken into account when you consider such assessments.

4. Disruption to Groundwater Dependent Terrestrial Ecosystems (GWDTE)

4.1 GWDTE are protected under the Water Framework Directive and therefore the layout and design of the development must avoid impact on such areas. The following information must be included in the submission:

a) A map demonstrating that all GWDTE are outwith a 100m radius of all excavations shallower than 1m and outwith 250m of all excavations deeper than 1m and proposed groundwater abstractions. If micro-siting is to be considered as a mitigation measure the distance of survey needs to be extended by the proposed maximum extent of micro-siting. The survey needs to extend beyond the site boundary where the

distances require it.

b) If the minimum buffers above cannot be achieved, a detailed site specific qualitative and/or quantitative risk assessment will be required. We are likely to seek conditions securing appropriate mitigation for all GWDTE affected.

4.2 Please refer to Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems for further advice and the minimum information we require to be submitted.

5. Existing groundwater abstractions

5.1 Excavations and other construction works can disrupt groundwater flow and impact on existing groundwater abstractions. The submission must include:

a) A map demonstrating that all existing groundwater abstractions are outwith a 100m radius of all excavations shallower than 1m and outwith 250m of all excavations deeper than 1m and proposed groundwater abstractions. If micro-siting is to be considered as a mitigation measure the distance of survey needs to be extended by the proposed maximum extent of micro-siting. The survey needs to extend beyond the site boundary where the distances require it.

b) If the minimum buffers above cannot be achieved, a detailed site specific qualitative and/or quantitative risk assessment will be required. We are likely to seek conditions securing appropriate mitigation for all existing groundwater abstractions affected.

5.2 Please refer to Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems for further advice on the minimum information we require to be submitted.

6. Forest removal and forest waste

6.1 Key holing must be used wherever possible as large scale felling can result in large amounts of waste material and in a peak release of nutrients which can affect local water quality. The supporting information should refer to the current Forest Plan if one exists and measures should comply with the Plan where possible.

6.2 Clear felling may be acceptable only in cases where planting took place on deep peat and it is proposed through a Habitat Management Plan to reinstate peat-forming habitats. The submission must include:

a) A map demarcating the areas to be subject to different felling techniques.

b) Photography of general timber condition in each of these areas.

c) A table of approximate volumes of timber which will be removed from site and volumes, sizes of chips or brash and depths that will be re-used on site.

d) A plan showing how and where any timber residues will be re-used for ecological benefit within that area, supported by a Habitat Management Plan. Further guidance on this can be found in Use of Trees Cleared to Facilitate Development on Afforested Land – Joint Guidance from SEPA, SNH and FCS.

7. Borrow pits

7.1 Scottish Planning Policy states (Paragraph 243) that “Borrow pits should only be permitted if there are significant environmental or economic benefits compared to obtaining material from local quarries, they are time-limited; tied to a particular project and appropriate reclamation measures are in place.” The submission must provide sufficient information to

address this policy statement.

7.2 In accordance with Paragraphs 52 to 57 of Planning Advice Note 50 Controlling the Environmental Effects of Surface Mineral Workings (PAN 50) a Site Management Plan should be submitted in support of any application. The following information should also be submitted for each borrow pit:

a) A map showing the location, size, depths and dimensions.

b) A map showing any stocks of rock, overburden, soils and temporary and permanent infrastructure including tracks, buildings, oil storage, pipes and drainage, overlain with all lochs and watercourses to a distance of 250 metres. You need to demonstrate that a site specific proportionate buffer can be achieved. On this map, a site-specific buffer must be drawn around each loch or watercourse proportionate to the depth of excavations and at least 10m from access tracks. If this minimum buffer cannot be achieved each breach must be numbered on a plan with an associated photograph of the location, dimensions of the loch or watercourse, drawings of what is proposed in terms of engineering works.

c) You need to provide a justification for the proposed location of borrow pits and evidence of the suitability of the material to be excavated for the proposed use, including any risk of pollution caused by degradation of the rock.

d) A ground investigation report giving existing seasonally highest water table including sections showing the maximum area, depth and profile of working in relation to the water table.

e) A site map showing cut-off drains, silt management devices and settlement lagoons to manage surface water and dewatering discharge. Cut-off drains must be installed to maximise diversion of water from entering quarry works.

f) A site map showing proposed water abstractions with details of the volumes and timings of abstractions.

g) A site map showing the location of pollution prevention measures such as spill kits, oil interceptors, drainage associated with welfare facilities, recycling and bin storage and vehicle washing areas. The drawing notes should include a commitment to check these daily.

h) A site map showing where soils and overburden will be stored including details of the heights and dimensions of each store, how long the material will be stored for and how soils will be kept fit for restoration purposes. Where the development will result in the disturbance of peat or other carbon rich soils then the submission must also include a detailed map of peat depths (this must be to full depth and follow the survey requirement of the Scottish Government's Guidance on Developments on Peatland - Peatland Survey (2017)) with all the built elements and excavation areas overlain so it can clearly be seen how the development minimises disturbance of peat and the consequential release of CO_2.

i) Sections and plans detailing how restoration will be progressed including the phasing, profiles, depths and types of material to be used.

j) Details of how the rock will be processed in order to produce a grade of rock that will not cause siltation problems during its end use on tracks, trenches and other hardstanding.

8. Pollution prevention and environmental management

8.1 One of our key interests in relation to developments is pollution prevention measures during the periods of construction, operation, maintenance, demolition and restoration. A schedule of mitigation supported by the above site specific maps and plans must be submitted. These must include reference to best practice pollution prevention and construction techniques (for example, limiting the maximum area to be stripped of soils at any one time) and regulatory requirements. They should set out the daily responsibilities of ECOWs, how site inspections will be recorded and acted upon and proposals for a planning monitoring enforcement officer. Please refer to Guidance for Pollution Prevention (GPPs).

9. Life extension, repowering and decommissioning

9.1 Proposals for life extension, repowering and/or decommissioning must demonstrate accordance with SEPA Guidance on the life extension and decommissioning of onshore wind farms. Table 1 of the guidance provides a hierarchical framework of environmental impact based upon the principles of sustainable resource use, effective mitigation of environmental risk (including climate change) and optimisation of long term ecological restoration. The submission must demonstrate how the hierarchy of environmental impact has been applied, within the context of latest knowledge and best practice, including justification for not selecting lower impact options when life extension is not proposed.

9.2 The submission needs to demonstrate that there will be no discarding of materials that are likely to be classified as waste as any such proposals would be unacceptable under waste management licensing. Further guidance on this may be found in the document Is it waste - Understanding the definition of waste.

Melrose J (Joyce)

From: #ABZ Safeguarding <abzsafeguard@aiairport.com>
Sent: 01 August 2022 14:17
To: Melrose J (Joyce)
Subject: RE: Balliemeanoch Pumped Storage Hydro Scheme

This proposal is located outwith the consultation area for Aberdeen Airport. As such we have no comment to make and need not be consulted further.

Kind regards

Kirsteen

Aberdeen International Airport

#ABZ Safeguarding
abzsafeguard@aiairport.com
www.aberdeenairport.com

Aberdeen International Airport Limited, Dyce, Aberdeen, AB21 7DU

ARGYLL DISTRICT SALMON FISHERY BOARD

Cherry Park, Inveraray, Argyll, PA32 8XE

Energy Consents Unit
The Scottish Government

16th July 2022

Dear Sir/Madam,

SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME

For the purposes of this consultation, Argyll District Salmon Fishery Board (ADSFB) represent the interests of local fishery managers in the Awe catchment which include the Awe District River Improvement Association (ADRIA) and Loch Awe Improvement Association (LAIA) who administer the protection order for fish on Loch Awe. We are informed by Argyll Fisheries Trust (AFT) of the specific use of habitats by different species of fish within the area of the proposed scheme.

Fish and habitat surveys conducted by AFT suggest that the lower reaches of some of the streams within the development site are accessible to Atlantic salmon, Brown trout and Brook lamprey and are used for spawning and juvenile nursery habitat. There are also brown trout and European eel present upstream of migratory barriers in many watercourses in the catchment and brown trout are usually present in lochs and lochans.

The Scoping Report identifies Lochan Airigh as being the focus of the scheme, but it is not clear to us if there is an intention to abstract water from other watercourse in the development area. To better inform the planning process, the developer should provide a full audit of the habitat and fish species present in the development area so that all potential effects on the habitat and fish resources can be considered and minimised.

We note that a small number of electrofishing survey sites have been identified by desk studies (Figure 7.1), but we urge that walkover habitat surveys inform the location of monitoring sites for the predevelopment stages to ensure that key sites are monitored during and after the proposed scheme is developed. Monitoring of macroinvertebrates should also be undertaken to ensure water quality is maintained.

We also note that eDNA sampling is proposed for the tailrace site at Loch Awe. We understand that a range of species may utilise these habitats in Loch Awe on a seasonal basis so the study should be conducted regularly over a period of a year. The design of the scheme should also consider the potential to draw fish into the pump storage scheme.

Chairman – Roger Brook
Clerk –Robert Younger Tel: 01499 302322 E-mail: robert.younger@fishlegal.net
Administrative Bookkeeper – Alyssa Stewart Tel: 01499 302322 E-mail: as@argyllfisheriestrust.co.uk

ARGYLL DISTRICT SALMON FISHERY BOARD

Cherry Park, Inveraray, Argyll, PA32 8XE

We would also like to highlight at this early stage that fish habitat and fish populations in the Awe catchment are already affected by a variety of renewable energy schemes and we ask that the additional risks of the Balliemeanoch scheme are not assessed in isolation within the EIA but as an addition to the existing impact on aquatic resources within the catchment.

We hope you find these comments useful.

Yours,

Robert Younger
Clerk to the Argyll District Salmon Fishery Board

Melrose J (Joyce)

From: Redacted
Sent: 28 September 2022 10:42
To: Econsents Admin
Subject: EC00003444 : BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME - Hydrology & Hydro Schemes

Balliemeanoch Pumped Storage Hydro Scheme (EC00003444)

Please note that in addition to Beochlich Hydro Scheme and the three others noted as operating around Loch Awe under 11.2.2.1 copied below, that this list should also at the very least include Blarghour Hydro Scheme A and Blarghour Hydro Scheme B with regards to any hydrology impact studies to be undertaken due to their proximity to the proposed developement.

Both Blarghour A and Blarghour B take water from Allt Blarghour, the catchment for which is the Blarghour high hill. Blarghour's High hill, as well as bordering the proposed Balliemeanoch Pumped Storage Hydro Scheme development area, is also wrongly shown on the development plans as an access route to the development .

Chapter 11

11.2.2.1 Loch Awe

There is an existing small-scale hydro scheme in operation within the Development Site known as Beochlich. The Beochlich hydropower project was constructed in 1998 and has an installed capacity of 1 MW. There are three additional existing hydro-electric power schemes operating on Loch Awe and the surrounding area. SSE plc operate the 25 MW Inverawe Power Station, which is a run of river hydropower scheme, which abstracts water from the River Awe Barrage at the Pass of Brander. The scheme at Cruachan is a 440 MW pumped storage scheme operated by Scottish PowerDrax Group plc. The third scheme is Nant, which is a 15 MW hydropower scheme that uses Lock Nant as the headpond and discharges into Loch Awe at the River Nant.

Regards

Catriona O'Keeffe

Blarghour Power Company Ltd

By Dalmally

Argyll PA33 1BW

Redacted

Melrose J (Joyce)

From: Redacted
Sent: 28 September 2022 10:42
To: Econsents Admin
Subject: EC00003444 : BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME - Access Routes
Attachments: BM_1.2_211116_above_ground_Infrastructure.pdf

Balliemeanoch Pumped Storage Hydro Scheme (EC00003444)

One of the access routes to Balliemeanoch Pumped Storage Hydro Scheme indicated on the plans submitted eg. on Figure 1.2 Above Ground Infrastructure (sheet 1) attached, incorrectly shows an access route over Blarghour Farm.

I can confirm that Intelligent Land Investments (ILI) **do not** have the land rights over Blarghour Farm as they have shown on their plans. ILI have not approached Blarghour with regards to taking access over the farm's hill land to the Balliemeanoch Pumped Storage Hydro scheme and as such, the access route indicated over Blarghour should be disregarded from this scoping request.

Regards

Catriona O'Keeffe

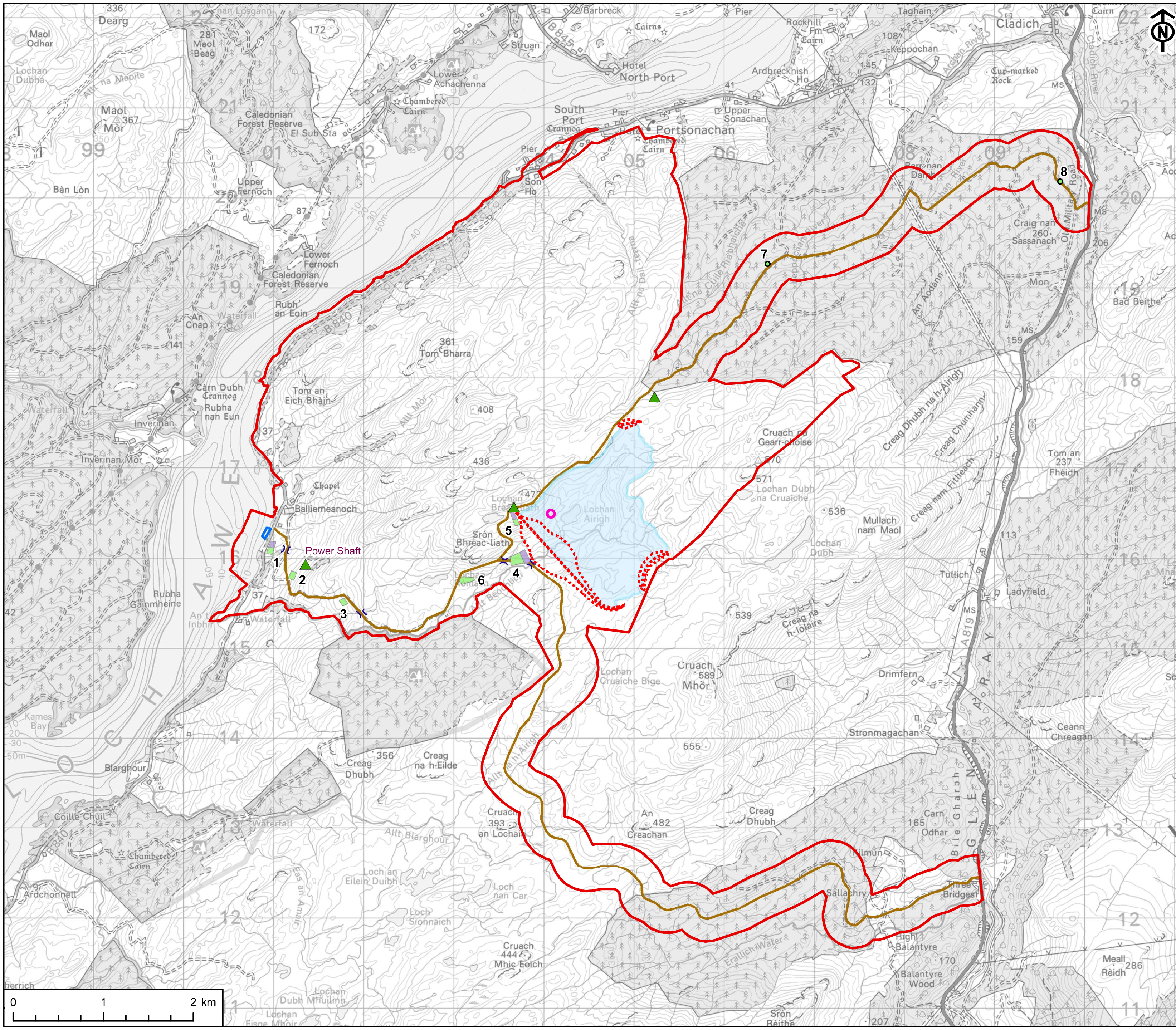
<<...>>

Blarghour Farm

By Dalmally

Argyll PA33 1BW

Redacted



Project Management Initials: MB Designer: NS Checked: LC Approved:RB

Scale @ A3 1:40,000

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AECOM

PROJECT

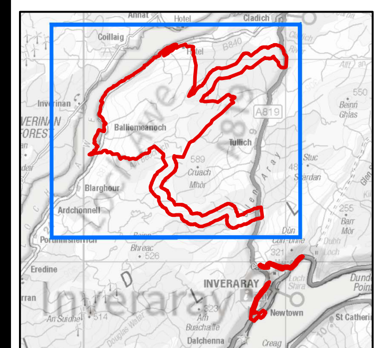
BALLIEMEANOCH PUMPED STORAGE HYDRO

CLIENT

ILI (Borders PSH) Ltd.

KEY

- Proposed Development Boundary
- Indicative Embankment
- Indicative Headpond Location
- Permanent Construction Compound
- Temporary Construction Compound
- Tailpond Outlet
- Access Track Bridges
- Access Track to be Upgraded
- Intake Tower
- Possible Substation Locations
- Indicative Construction Compound Location



TITLE

Figure 1.2
Above Ground Infrastructure

REFERENCE

BM_211217_SC_1.2_v1

SHEET NUMBER	DATE
1 of 2	17/12/21

Mcgroarty K (Kirsty)

From: radionetworkprotection@bt.com
Sent: 26 July 2022 12:56
To: Melrose J (Joyce)
Cc: Econsents Admin
Subject: Balliemeanoch Pumped Storage Hydro Scheme WID11914
Attachments: Balliemeanoch.pdf

OUR REF: WID11914

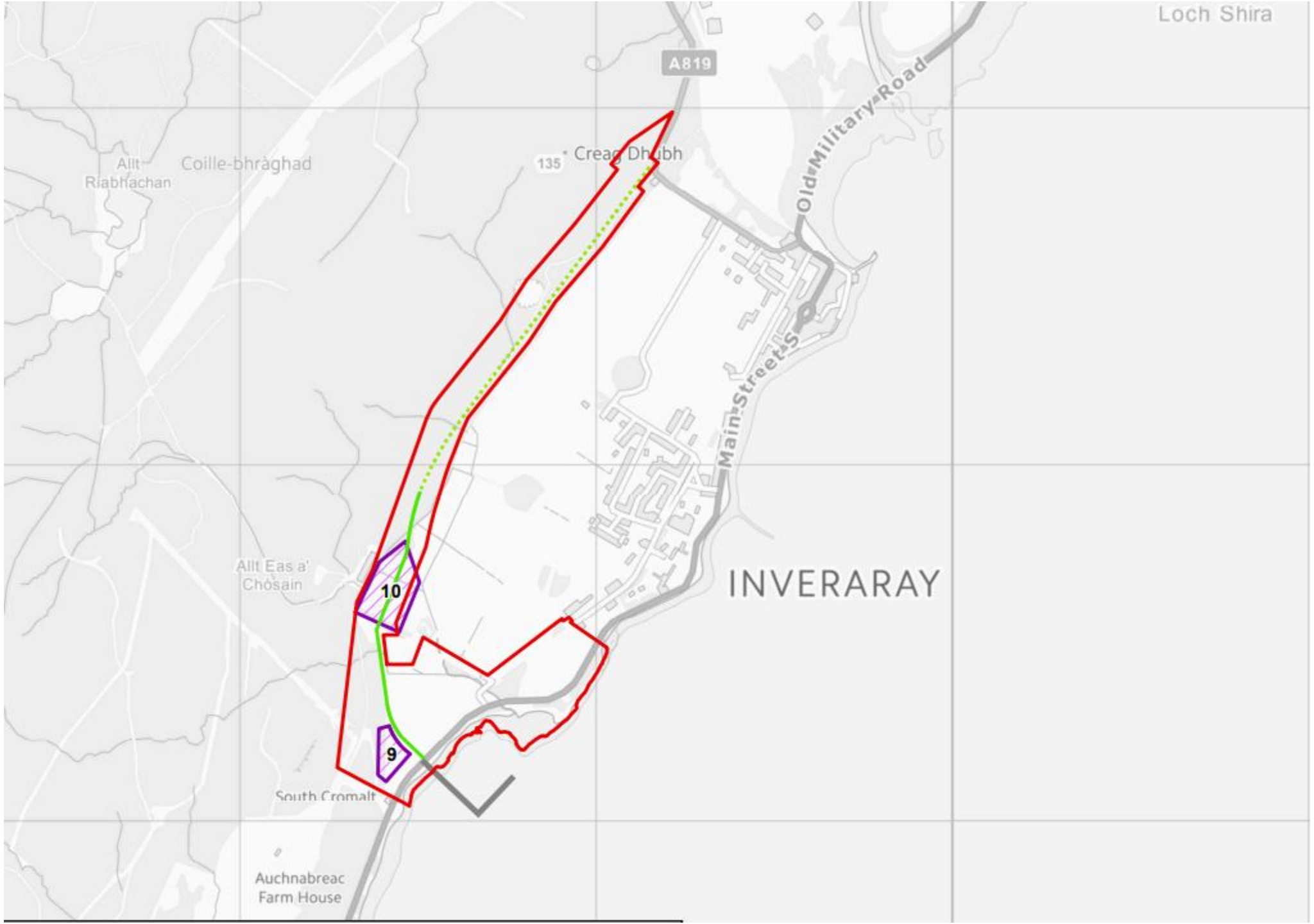
Good afternoon Joyce

Thank you for your email dated 14/07/2022.

We have studied this proposal using the below postcode, with respect to EMC and related problems to BT point-to-point microwave radio links.

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

Kind Regards
Chris


Loch Shira
A819
Old Military Road
Main Streets
Allt Riabhachan
Coille-bhràghad
135
Creag Dhubh
INVERARAY
Allt Eas a' Chòsain
10
9
South Cromalt
Auchnabreac Farm House


A819
Old Military Road
A83
Inveraray
Golf
Club
INVERARY
POLICE TOWER
A83
Argyll Coastal
A815
A83
EXISTING BT Link
In relation to proposed
Temporary construction
compounds

8th August 2022

Joyce Melrose
Admin Officer
Energy Consents Unit
The Scottish Government

Dear Ms Melrose

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

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME

Thank you for including Clydeport in the consultation for the above scheme. As a Statutory Harbour Authority (SHA), Clydeport has statutory responsibility for safety of navigation and protection of the marine environment. Considerations for the aforementioned within the project and construction of the new pier would be our main focus. As the Competent Harbour Authority (CHA) any vessels involved maybe subject to pilotage and we can discuss this as project planning progresses. Our comments at this stage are as follows:

- Your scoping report acknowledges that more assessments are required. We consider that an assessment of any impact of the works on surrounding designated sites and where appropriate outlining any mitigation measures that the project may need to undertake.
- Invasive Non-Native Species have been considered, however we would like to see a risk assessment undertaken as part of the further environmental assessments.
- It is not clear whether any dredging is required for the construction of the new pier, and whether this would be needed to accommodate vessels delivering equipment or materials for the Hydro Scheme.
- Any works below MHWS proposed within Clydeport's jurisdiction may require a Works Licence so early consultation would be required when plans are more advanced.
- We note that the new pier is considered temporary so we would like to understand what are the intentions for this structure on completion of the construction of the Hydro Scheme?

Yours sincerely

Redacted

Caroline Baxter
Marine Compliance Officer

Peel Ports Clydeport
Marine Dept, Ocean Terminal
Patrick St, Greenock
PA16 8UU

Tel: **+44 (0)1475 886318**

Email: clydemarinemanagers@peelports.com
Website: **www.peelports.com**

Melrose J (Joyce)

From: Olivia Morrad <olivia.morrad@crownestatescotland.com>
Sent: 10 August 2022 16:54
To: Melrose J (Joyce)
Subject: 20220810 Balliemeanoch Pumped Storage Hydro Scheme. Email to GovScot

Good afternoon

Thank you for your email.

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.

Kind regards

Olivia

Olivia Morrad
Assistant Portfolio Co-ordinator
Crown Estate Scotland

t: 0131 376 1506

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

Mcgroarty K (Kirsty)

From: Safe Guarding <safeguarding@edinburghairport.com>
Sent: 29 July 2022 13:26
To: Econsents Admin
Cc: Safe Guarding
Subject: ECU00003444 - Balliemeanoch Pumped Storage Hydro Scheme

Good afternoon,

In respect of the above, I can confirm the location of this development falls out with our Aerodrome Safeguarding zone for Edinburgh Airport therefore we have no objection/comment.

With best regards,
Claire

Claire Brown
Aerodrome Safeguarding & Compliance Officer

Edinburgh Airport
Where Scotland meets the world

Our values

t: +44 (0)131 344 3845 m: 07771 842927
www.edinburghairport.com

Edinburgh Airport Limited
Room 3/54, 2nd Floor Terminal Building
EH12 9DN, Scotland

Melrose J (Joyce)

From: Alan Wells <alan@fms.scot>
Sent: 16 August 2022 14:56
To: Melrose J (Joyce)
Subject: RE: Balliemeanoch Pumped Storage Hydro Scheme

Dear Joyce,

Fisheries Management Scotland endorse the comments on the proposed development made by the Argyll District Salmon Fishery Board. In particular we note that the Scottish Government have recognised that Atlantic salmon are in crisis and published a wild salmon strategy in January 2022. This situation should be fully taken into account in both the screening and scoping and any subsequent licence decisions.

Kind regards,

Alan

Dr Alan Wells | CEO
Fisheries Management Scotland
11 Rutland Square, Edinburgh, EH1 2AS
Tel: 0131 221 6567 | 07557 133455
www.fms.scot

GLASGOW AIRPORT
PROUD TO SERVE SCOTLAND

FAO Joyce Melrose
Energy Consents Unit
By Email

4th August 2022

Dear Joyce

Re: ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017
REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME
Our reference: GLA4180

I refer to your request for scoping opinion received in this office on 14th July 2022.

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

- The site is outwith the obstacle limitation surfaces and radar safeguarding area for Glasgow Airport;
- It is within the instrument flight procedures safeguarding area however no impact is expected.

Our position with regard to this proposal will only be confirmed once the development 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
07808 115 881
Kirsteen.MacDonald@glasgowairport.com

Mcgroarty K (Kirsty)

From: Steve Thomson <sthomson@glasgowprestwick.com>
Sent: 15 August 2022 17:38
To: Melrose J (Joyce); Econsents Admin
Cc: Safeguarding
Subject: Balliemeanoch Pumped Storage Hydro Scheme - formal response from Glasgow Prestwick Airport - 15th Aug 2022

Joyce

We have examined the scoping consultation documents available on the Energy Consents Unit (ECU) Portal under **EC00003444** in respect of the proposed Balliemeanoch Pumped Storage Hydro Scheme

On behalf of Glasgow Prestwick Airport (GPA) – the proposed development lies outwith the Airport's safeguarding area and as such GPA have no comment to make on the scoping consultation and would have no aviation grounds to object to this proposal should it come to a full Section 36 Planning Application.

With Kind Regards

Steve Thomson

Glasgow Prestwick Airport Ltd.
Aviation House
Prestwick
KA9 2PL
Scotland
United Kingdom

Steve Thomson
Manager Air Traffic Services

T: (+44) 01292 511055
M: (+44) 07990 551141

sthomson@glasgowprestwick.com

www.glasgowprestwick.com

Melrose J (Joyce)

From: JRC Windfarm Coordinations <windfarms@jrc.co.uk>
Sent: 28 July 2022 10:27
To: Melrose J (Joyce)
Subject: Balliemeanoch Pumped Storage Hydro Scheme [WF946538]

Dear joyce,

A Windfarms Team member has replied to your co-ordination request, reference **WF946538** with the following response:

Please do not reply to this email - the responses are not monitored.

If you need us to investigate further, then please use the link at the end of this response or login to your account for access to your co-ordination requests and responses.

Dear Sir/Madam,

***Site Name**: Balliemeanoch Pumped Storage Hydro Scheme*

***Buildings at NGR**:*

Headpond – Location: NN 04594 16411
Headpond Inlet Outlet Intake tower height: 20 m above water level.
Headrace surface surge shaft Location: NN 03884 16785

Tailpond (Loch Awe) Location: NN 00908 16232
Tailpond Inlet Outlet Location: NN 00916 16283 Dimensions: Approximately 20 x 70 x 15 m (WxLxH)

Marine Facility – Location (Loch Fyne) NN 08608 07178
Height: 7 m (above mean high water springs)

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

Scottish Hydro (Scottish and Southern Electricity)

JRC analyses proposals 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 development, JRC does not foresee any potential problems based on known interference scenarios and the data you have provided. However, if any details change, particularly the disposition or scale, 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.
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About The JRC | Joint Radio Company | JRC

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.

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?auth=o1xr2bqaacgnqaaaDzeQjcr18LUWuA%3D%3D

Sam Chudley
Maritime and Coastguard Agency
Bay 2/24
Spring Place
105 Commercial Road
Southampton
SO15 1EG

www.gov.uk/mca

Your Ref: ECU00003444

16th August 2022

Via email: Econsents_Admin@gov.scot

Dear Joyce,

Balliemeanoch Pumped Storage Hydro Scheme Scoping Report

Thank you for your email dated 20 July 2022 inviting comments on the Scoping Report for the proposed Balliemeanoch Pumped Storage Hydro Scheme. My apologies for the delay in this response. The Scoping Report has been considered by representatives of UK Technical Services Navigation, and the MCA would like to respond as follows:

We note that the proposed development includes two areas of works in the marine environment; a marine facility just south of Inveraray and associated works to the north of the site located on Loch Awe, including a tail pond inlet/outlet structure. The marine facility will extend approximately 400m from the shoreline and includes both temporary and permanent components. The marine facility will accommodate the delivery of large components associated with the tunnelling, mechanical and electrical components. Several different types of plant and equipment will be required for the construction and operation of the proposed marine facility; these include barges, tugs, jack up barges, workboats, harbour/mobile cranes and rigs.

We note that it is proposed to scope out shipping and navigation from any further assessment.

The MCA has an interest in the works associated with the marine environment, and the potential impact on the safety of navigation, access to ports, harbours and marinas and any impact on our search and rescue obligations. The MCA would expect any works in the marine environment to be subject to the appropriate consents under the Marine (Scotland) Act 2010 before carrying out any marine licensable works.

We note that on this occasion that the proposed marine facility falls within the jurisdiction of a Statutory Harbour Authority (SHA) - Clyde Port and therefore they are responsible for the safety of navigation within their waters. The applicant will need to gain the approval/agreement of the responsible local

navigation authority, and they may require a navigation risk assessment to be undertaken. They may also wish to issue local warnings to alert those navigating in the vicinity to the presence of the works, as deemed necessary.

To address the ongoing safe operation of the marine interface for the marine facility, we would like to point the developers in the direction of the Port Marine Safety Code (PMSC) and its Guide to Good Practice. They will need to work with Clyde Port to ensure a robust Safety Management System (SMS) is in place for the project under this code. From the Guide to Good Practice, section 7 Conservancy, a Harbour Authority has a duty to conserve the harbour so that it is fit for use as a port. The harbour authority also has a duty of reasonable care to see that the harbour is in a fit condition for a vessel to be able to use it safely.

It is not clear from the Scoping Report the extent of the works required in the marine environment for the tail pond inlet/outlet structure located to the north of the site on Loch Awe, and any potential impact on shipping and navigation. It is our understanding that this location falls outside of any statutory harbour authority jurisdiction. The MCA would therefore expect consideration to be given to the impact of the proposed works on shipping and navigation, relative to the scale of the works, including any potential impact on fishing, recreational and commercial vessels. It is likely that any risk can be mitigated through suitably worded conditions and advisories at the formal marine licencing stage.

I hope you find this information useful.

Yours sincerely,

Redacted

Sam Chudley
Maritime Licence Advisor
UK Technical Services Navigation

Mcgroarty K (Kirsty)

From: Davie Black <access@mountaineering.scot>
Sent: 10 August 2022 08:13
To: Econsents Admin
Subject: Balliemeanoch Pumped Storage hydro scheme ECU00003444

Dear Sir/Madam,
Mountaineering Scotland has no comments to make on this Scoping Report at this time.

With kind regards

Davie Black
Access & Conservation Officer

T: 07555 769325

Mountaineering Scotland
The Granary, West Mill Street
Perth, PH1 5QP

Love Scotland's mountains?
Walk climb ski. Join us.

www.mountaineering.scot

Haggerstone L (Linda)

From: NATS Safeguarding <NATSSafeguarding@nats.co.uk>
Sent: 22 July 2022 09:06
To: Melrose J (Joyce)
Cc: Econsents Admin
Subject: RE: Balliemeanoch Pumped Storage Hydro Scheme [SG33717]

Our Ref: SG33717

Dear Sir/Madam

NATS anticipates no impact from the proposal as it does not include any wind turbines and is not in proximity to any of its infrastructure. Accordingly we have no comments to make on the Scoping.

Yours faithfully

NATS Safeguarding

E: natssafeguarding@nats.co.uk

4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk

Mcgroarty K (Kirsty)

From: Cheri Cunningham <Cheri.Cunningham@networkrail.co.uk> on behalf of Asset Protection Scotland <AssetProtectionScotland@networkrail.co.uk>
Sent: 11 August 2022 11:28
To: Melrose J (Joyce)
Subject: 312 - Balliemeanoch Pumped Storage Hydro Scheme
Attachments: Asset Protection Guidance Document v 22.pdf; Development-enquiry-questionnaire.doc

OFFICIAL

Good Morning Joyce,

Thanks for contacting Asset Protection Scotland regarding your proposed works. Please accept our sincerest apologies for the delay in getting back to you.

Please note Network Rail have a statutory obligation to ensure the safe availability of train paths and take an active interest in any adjacent operations which may have the potential to impact on the safe operation of the railway. As such, it will be necessary for you/ your contractor to design and carry out works on this site in accordance with Network Rail's attached guidance document "Requirements for Construction Work on or Near Railway Operational Land by Outside Parties".

In order to further assist us with responding specifically to your enquiry can you please complete and return the attached development questionnaire with as much detail as possible.

A member of our team will respond to you directly with advice on the specific requirements needed in relation to your proposed works. We would like to advise that all our departments within Asset Protection are experiencing a large increase in enquiries which is causing a huge back log; your patience is greatly appreciated.

Best Regards,

Cheri Cunningham
Asset Protection Project Management Assistant
Interface – Scotland
151 St Vincent Street, Glasgow G2 5NW

ASSET PROTECTION OUTSIDE PARTIES

GUIDANCE DOCUMENT

Requirements for Construction Work on or near Railway Operational Land by Outside Parties

Issue record

Issue	Date	Comments
16	May 2011	General revision
17	April 2013	Updated Contact Map
18	July 2013	Updated Contact Map
19	July 2016	Updated Contact Map
20	April 2017	Updated Contact Map and External Website Links
21	May 2018	Updated Contact Map and Guidance on Clearances
22	Jan 2020	Updated Contact Map, External Website Links and Guidance on Cranes

Disclaimer

The information contained is believed to be correct at the time of publication, but regulations, standards and specifications do change. The reader must ensure that they refer to their latest instructions which this document does not supersede.
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The inclusion of a process or product in the document should not be construed as an endorsement of that process or product by Network Rail.

Use of this Document

This document is issued for guidance purpose. All works must comply with the current relevant Railway Group Standards. The current nationally agreed version from the Secretary of State for Transport's Model Contract Document for Highway Works Contracts should be included in the contract document for any works on or near the railway.

Current Railway Industry Group Standards that may be applicable to the proposed works are listed in Appendix D, but this is not a comprehensive list of Group Standards and others may be applicable depending on site activities. Network Rail's Asset Protection Project Manager (or his nominated deputy) will advise if necessary.

Network Rail Standards NR/L1/OHS/051 Drugs and Alcohol, NR/L2/OHS/00119 For Cause Testing for Drugs and Alcohol and NR/SP/ERG/003 Control of Excessive Working Hours for Persons undertaking Safety Critical Work (formerly RT/LS/P/003) apply to all persons working on Network Rail property, whether employed by Network Rail or any other organisation. (Check all relevant Standard references)

Please note that referral to Group and Company Standards and the provision of opinions, permissions or approvals by Network Rail representatives does not extend to or imply any warranty or representation as to the adequacy of or responsibility for any part of the works or in any way displace the responsibility of the proposer or his contractors in relation to such matters.

Contents

Network Rail Route Map and Contact Details :

Detailed information is available on the Network Rail website. This includes a more detailed map of the Asset Protection areas. This will assist in contacting the correct team for each specific Outside Party's location. The preferred contact method is via email in the first instance : www.networkrail.co.uk follow the links - Running the railway then - Looking after the railway then - Asset Protection and Optimisation.

Property Issues:
All property issue such as Town & Country planning, property sales or lettings negotiations should be directed to the Network Rail Commercial Property team.
For general enquiries email : commercial.property@networkrail.co.uk

All enquiries concerning easements and wayleaves should be directed to :
easements&wayleaves@networkrail.co.uk

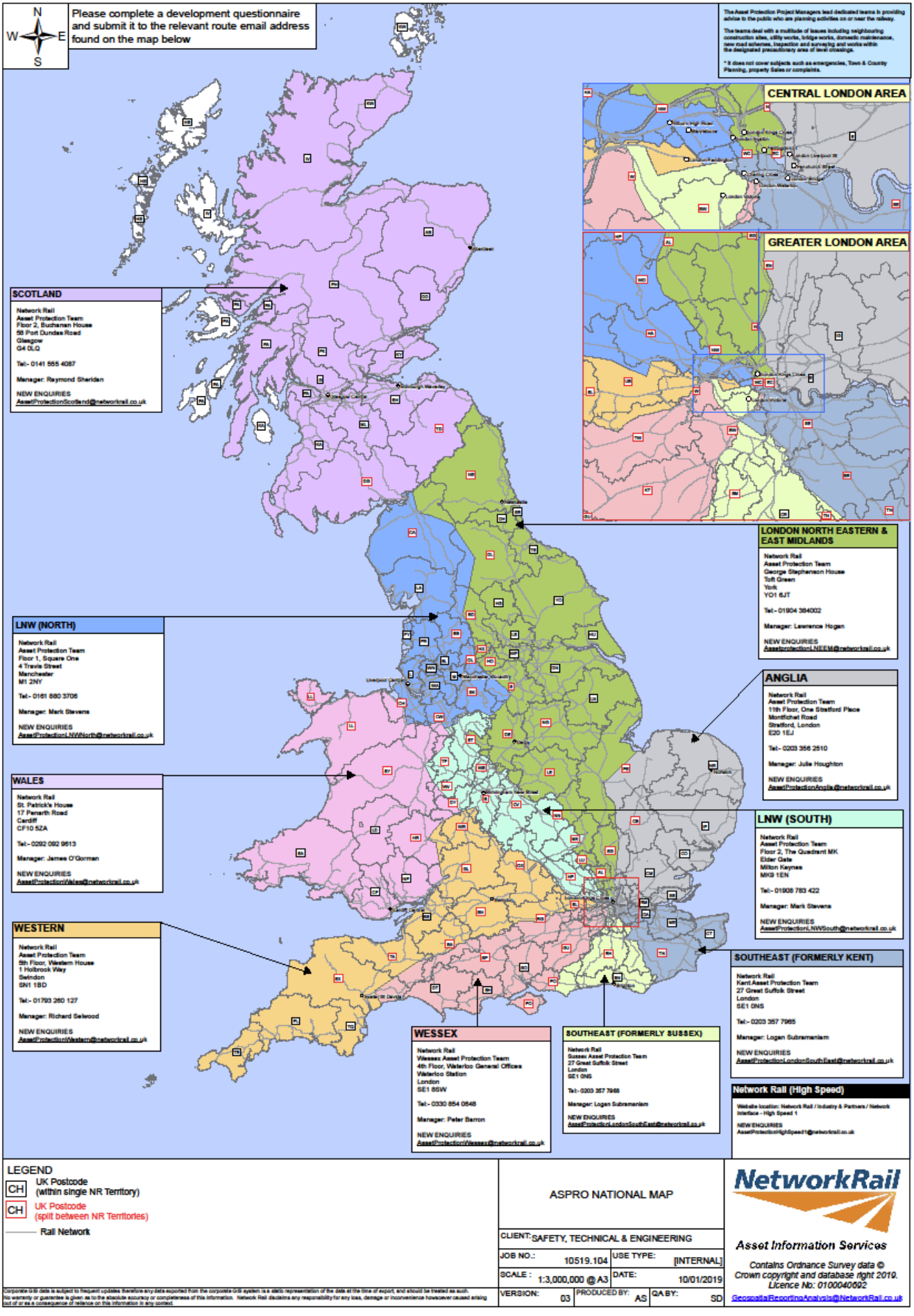
Emergencies :
If you need to contact Network Rail in the event of an emergency contact the National Helpline on 03457-114141

Asset Protection Team :
The Network Rail Asset Protection Team's aim is to provide excellent customer service to the Outside Party in project and programme delivery, whilst maintaining safety, reliability, and efficiency of the rail infrastructure.

Following initial enquiries from the Outside Party regarding their proposed works, Network Rail will assess the risk to the operational railway and to the Outside Party themselves.

Network Rail will assess the work being undertaken with respect to a number of items , including (but not limited to) :

- Proximity of the work to the railway
- Nature of the work being undertaken, the imposed risk and how these can be mitigated.
- The programme of works and specifically tasks that interface with the railway
- Requirements for any track closures or electrical isolations for the work.
- Agreeing deliverables that are required for the work to take place in accordance with NR Policy and Group and Company Standards.
- Review and comment on proposed methodology before work commences for the activities being undertaken.
- Providing site staff to ensure that the risks to the railway and the Outside Party are reduced.
- Liaison with other NR departments as necessary to provide clear focus and customer services for the Outside Party.


N
W
E
S
Please complete a development questionnaire and submit it to the relevant route email address found on the map below
The Asset Protection Project Managers lead dedicated teams in providing advice to the public who are planning activities on or near the railway.
The teams deal with a multitude of issues including neighbouring construction sites, utility works, bridge works, domestic maintenance, new road schemes, inspection and surveying and works within the designated precautionary area of level crossings.
* It does not cover subjects such as emergencies, Town & Country Planning, property Sales or complaints.
CENTRAL LONDON AREA
GREATER LONDON AREA
SCOTLAND
Network Rail
Asset Protection Team
Floor 2, Buchanan House
58 Port Dundas Road
Glasgow
G4 0LQ
Tel:- 0141 555 4057
Manager: Raymond Sheridan
NEW ENQUIRIES
AssetProtectionScotland@networkrail.co.uk
LONDON NORTH EASTERN & EAST MIDLANDS
Network Rail
Asset Protection Team
George Stephenson House
Toft Green
York
YO1 6JT
Tel:- 01904 384002
Manager: Lawrence Hogan
NEW ENQUIRIES
AssetprotectionLNEEM@networkrail.co.uk
LNW (NORTH)
Network Rail
Asset Protection Team
Floor 1, Square One
4 Travis Street
Manchester
M1 2NY
Tel:- 0161 880 3706
Manager: Mark Stevens
NEW ENQUIRIES
AssetProtectionLNWNorth@networkrail.co.uk
ANGLIA
Network Rail
Asset Protection Team
11th Floor, One Stratford Place
Montfichet Road
Stratford, London
E20 1EJ
Tel:- 0203 356 2510
Manager: Julie Houghton
NEW ENQUIRIES
AssetProtectionAnglia@networkrail.co.uk
WALES
Network Rail
St. Patrick's House
17 Penarth Road
Cardiff
CF10 5ZA
Tel:- 0292 092 9813
Manager: James O'Gorman
NEW ENQUIRIES
AssetProtectionWales@networkrail.co.uk
LNW (SOUTH)
Network Rail
Asset Protection Team
Floor 2, The Quadrant MK
Elder Gate
Milton Keynes
MK9 1EN
Tel:- 01908 783 422
Manager: Mark Stevens
NEW ENQUIRIES
AssetProtectionLNWSouth@networkrail.co.uk
WESTERN
Network Rail
Asset Protection Team
5th Floor, Western House
1 Holbrook Way
Swindon
SN1 1BD
Tel:- 01793 260 127
Manager: Richard Selwood
NEW ENQUIRIES
AssetProtectionWestern@networkrail.co.uk
SOUTHEAST (FORMERLY KENT)
Network Rail
Kent Asset Protection Team
27 Great Suffolk Street
London
SE1 0NS
Tel:- 0203 357 7985
Manager: Logan Subramaniam
NEW ENQUIRIES
AssetProtectionLondonSouthEast@networkrail.co.uk
WESSEX
Network Rail
Wessex Asset Protection Team
4th Floor, Waterloo General Offices
Waterloo Station
London
SE1 8SW
Tel - 0330 854 0546
Manager: Peter Barron
NEW ENQUIRIES
AssetProtectionWessex@networkrail.co.uk
SOUTHEAST (FORMERLY SUSSEX)
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Sussex Asset Protection Team
27 Great Suffolk Street
London
SE1 0NS
Tel:- 0203 357 7968
Manager: Logan Subramaniam
NEW ENQUIRIES
AssetProtectionLondonSouthEast@networkrail.co.uk
Network Rail (High Speed)
Website location: Network Rail / Industry & Partners / Network Interface - High Speed 1
NEW ENQUIRIES
AssetProtectionHighSpeed1@networkrail.co.uk
LEGEND
CH UK Postcode (within single NR Territory)
CH UK Postcode (split between NR Territories)
Rail Network
ASPRO NATIONAL MAP
CLIENT: SAFETY, TECHNICAL & ENGINEERING
JOB NO.: 10519.104
USE TYPE: [INTERNAL]
SCALE : 1:3,000,000 @ A3
DATE: 10/01/2019
VERSION: 03
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QA BY: SD
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GeospatialReportingAnalysis@NetworkRail.co.uk

INTRODUCTION

This is a guidance document for any party, not directly employed by Network Rail, proposing to undertake construction, demolition and maintenance of permanent and/or temporary works on, over, under or alongside Network Rail property. These are generally referred to as Outside Party Works.

This guidance note is intended for use by Outside Parties. For works carried out by Third Parties reference should be made to Network Rail Company Standard NR/L2/INI/CP0043 – Management of Third Party Works on Network Rail.

Outside Parties are reminded of their statutory responsibilities with respect to health and safety legislation and of their liability, should any incident arise on the railway, as a result of their actions or as a result of not taking cognisance of these requirements.

Network Rail has a role to manage the activities of outside parties who want to carry out works on or near to the railway, or to build bridges under or over our land or where that activity impacts in some way upon the national rail network.

All work of this nature, no matter how small, can potentially import risk to the operational railway or damage our infrastructure. And vice-versa. The railway environment is a potentially dangerous one for Outside Parties to work alongside and can impact upon your works.

Network Rail has a team of Asset Protection Project Managers that is dedicated to providing advice to anyone who is planning activities on or near the railway. Our Asset Protection Project Managers can address a multitude of tasks, including neighbouring construction sites, maintenance of property and work near level crossings, etc., to assess the potential impact of your project. They can give you guidance – on site, at a meeting, through correspondence or with booklets – to clarify whether your proposed project poses a risk to the rail network

The term “work” in this context is to be read in its widest meaning including the development concept, its design and execution. Where the work is to be carried out under contract or licence with Network Rail these Guidance Notes will apply and the Special Requirements in Appendix B will automatically form a part of any offer or invitation to tender to carry out the Works by the Outside Party and are preconditions to any purported acceptance or grant of permission on the part of Network Rail. The checklist in Appendix A is a suggested method of ensuring necessary aspects are considered. It shows the type and level of information required by the Network Rail Asset Protection team to review and accept any proposed Outside Party works. It should be noted also that for particular sites there may be circumstances for which additional stipulations would be obligatory.

Where the work or part of the work is to be carried out otherwise than under contract or licence with Network Rail then, if and to the extent that Network Rail permits or approves that work or that part of the works, such approval will be given only on the basis of compliance with these Guidance Notes, the guidelines set by them and any additional criteria specified by the Network Rail Asset Protection team.

While these Guidance Notes state the general requirements, there will be individual situations where additional criteria apply and the Network Rail Asset Protection team will issue more specific generic engineering conditions for discussion. It is therefore in the Outside Party's interests to consult with Network Rail at the earliest stage. It is hoped that the participation of the Asset Protection Team will be advantageous to the Outside Party in planning, designing and executing his works.

Where necessary, there will be a need to agree terms for the use of railway land jointly with Network Rail Property and other Network Rail departments such as Maintenance, Operations and Customer Services etc, and adequate time must be allowed for this in the programme.

It must be clearly understood however that no such participation, opinion, permission or approval by Network Rail extends to or implies any warranty or representation as to the suitability or adequacy of or responsibility for any part of the Works or in any way displaces the responsibility of the Outside Party in relation to such matters.

Normally only contractors holding an approved Network Rail Licence will be accepted for carrying out works affecting operational railway infrastructure. It is imperative that anyone working on Network Rail operational property has demonstrable competency and experience of this type of work.

It is anticipated that all Outside Parties have satisfied their legal requirements with regard to Local Authority Planning Consents, Transport and Works Orders, Parliamentary Undertakings, etc. and any technical acceptance by Network Rail will assume that this is the case.

All Outside Parties planning works on, over or under Network Rail infrastructure must enter into a Works Agreement with Network Rail covering the design, construction and maintenance of all works prior to the commencement of the works. The Works Agreement includes the commitment of the Outside Party to pay Network Rail's costs for the project management of the railway interface and includes details of the future maintenance and ownership of the structure.

Network Rail may use specialists for the evaluation of complex or prolonged construction schemes. Fees and all other costs incurred by Network Rail in this event will usually be recoverable from the Outside Party.

For most schemes the Network Rail Asset Protection team will allocate site staff to oversee their interests during the works. Site accommodation should be provided at a

level sufficient for the site staff to carry out their duties. Exact requirements to be agreed by the Outside Party with the Network Rail Asset Protection team, based on the specific nature of the project.

Contractors requiring access onto Network Rail infrastructure must comply with Network Rail's safety and co-ordination procedures, including assuring continuous access to the railway for maintenance by Network Rail and their contractors throughout the works. These access arrangements must be agreed prior to the erection of any fence, hoarding or gate that may compromise access to the Network Rail Infrastructure.

The design, construction and maintenance methodology of all works including protective measures for the railway shall be agreed with the Network Rail Asset Protection team prior to any work commencing.

It should be noted that acceptance of outline proposals, designs, method statements etc. will usually be given provided that the Network Rail Asset Protection team is satisfied that any foundations or structures are not affected detrimentally or loaded in any way by the proposals, including temporary works, nor will the operational railway be affected or the safety compromised by the proposed works. Such acceptance by Network Rail does not relieve the Outside Party of responsibility to carry out the works in a safe and efficient manner.

GENERAL GUIDANCE NOTES :

1. **STANDARDS**

The safe operation of the railway is governed by a number of Standards that it is incumbent upon any Outside Party to abide by. Dimensions relating to acceptable clearances are contained with Network Rail Standards and are quoted in Section 2 of the work proposal (Appendix A) for ease of reference. The Network Rail Asset Protection team will advise of other principal Standards and site-specific requirements. These will include access requirements for non-Network Rail personnel and the Safety Requirements related to Construction Contracts. The Network Rail Asset Protection team will need to satisfy themselves as to the competency of any contractor working on or near operational land and to apply checking procedures to any permanent or temporary works affecting that land, which have been designed by a contractor or consultant.

2. **PROGRAMME**

There must be adequate consultation and discussion with the Asset Protection Team from as early a stage as possible prior to the commencement of any proposed works. This applies when permission is sought to use or occupy Designated Land, or for works on, or which may affect, the operational railway. The Asset Protection Team requires adequate notice where temporary adjustment to rail services may be necessary.

Except where the Asset Protection Team agrees otherwise in writing, the consultation programme shall be:

2.1. An initial discussion with the Asset Protection Team :
2.1.a. to explain the outline of the proposals; and
2.1.b. to discuss factors relevant to the project that the Outside Party will need to explore in preparing his detailed proposals. At this meeting, the checklist in Appendix A may assist in providing initial guidance. The Outside Party will be expected to identify and discuss the proposed programme for the steps following.

2.2. A further meeting or meetings at which the Outside Party submits his design proposals together with a comprehensive checklist, identifying all the criteria to be taken into account during the design and execution of the proposed works. This is to assist the Asset Protection Team in satisfying itself that the works will not in any way jeopardise the railway or the stability of the operational land. At this meeting, the programme for any works will normally be discussed.

2.3. The submission by the Outside Party of such further information or details as the Asset Protection Team may require.

2.4. The preparation of a possession plan, (a plan identifying the project's requirements for possession of the railway/ arrangements to stop the normal passage of trains) taking into account the typical periods, i.e.:

2.4.a. Non-disruptive possessions (standard possession opportunities as defined in the Rules of the Route) - 20 weeks.

2.4.b. Disruptive possessions (longer periods with consequent diversion or cancellation of train services / substitute buses) 54 weeks or much longer, depending on route and circumstances.

Disruptive possessions will only be considered if there is no practicable alternative for engineering reasons or it is advantageous for railway operations.

Possession working will require appropriate possession management personnel to be paid for by the Outside Party to manage booked possessions. The possessions will be booked by the Asset Protection Team.

2.5. The application to Network Rail for final consent for the Works to proceed, which will not be given until an appropriate Works Agreement has been completed and terms of occupation or acquisition of railway land have been agreed and completed with the Network Rail Property.

3. TECHNICAL APPROVAL REQUIREMENTS

In cases where the safety of railway operations or existing rail infrastructure might be affected by the proposed works it is incumbent upon the Outside Party to:

a) Provide information to Network Rail about the design and checking process, including copies of the Design and Design Check Certificate(s) for the works,

b) Consult and take account of the observations of Network Rail on the works, and

c) Satisfy the provisions of any agreement between the Outside Party and Network Rail.

4. DESIGN AND CONSTRUCTION

On matters potentially affecting the railway, construction will not be allowed to proceed without the approval of Network Rail. This part sets out the general requirements, but for particular situations additional constraints may apply (see above for Technical Approval requirements).

In view of the particular safety requirements it is advised that the Outside Party consults the Asset Protection Team at the inception of the design in order to review the checklist of information required. See Appendix A.

4.1. Location and Description

The location and nature of proposed works on or near operational land are to be notified as soon as possible.

The effect of these works on railway operations may only become apparent when the Outside Party discusses the items on the checklist with the Asset Protection Team.

4.2. Zones of Influence

The extent of the zone of influence depends on the location of the development or construction site with respect of the operational railway as set out below

Works above, and/or adjacent to the level of the railway:
Referring to the figure in Appendix A diagram 2.1, the shaded line denotes the zone within which permanent works will not normally be permitted except by agreement with Network Rail. Temporary works may be permitted within a smaller envelope subject to consent in writing by Network Rail. The precise dimensions depend on the track geometry, rolling stock and line speed at the specific location (details of which can be found in Network Rail and Group

Standards). Network Rail reserves the right to modify the extent of these zones should this be necessary in the interests of the safety of the railway. It should be noted dimensions given within Appendix A are general guidelines only.

Drawings showing proposed clearances to new structures and sighting distances to signals shall be submitted for acceptance by Network Rail. The visibility of any railway signal or sign shall not be compromised by any permanent or temporary works.

Works below, and/or adjacent to the level of the railway:
Refer to the figures in Appendix A diagrams 2.2, 3.1 and 3.2 for details. Ideally any excavation or foundation should be designed to be constructed without the need to impinge on the support zone for Network Rail structures, trackwork or other equipment including service troughs. Generally, foundations should be designed so that the founding level is beyond the 45˚ spread line measured 3m from the running edge of the rail, structure or equipment foundation.
Where excavation or foundation works are proposed within this support zone then detailed site investigations and design proposals must be submitted. Specialist geotechnical advice will be expected for complex or large schemes.

4.3. Design of Permanent and Temporary Works

Unless agreed otherwise in writing, all buildings and other development, including foundations shall be sited a sufficient distance from the Railway boundary to enable construction and maintenance to be carried out without the need to enter onto Railway property or infringe safety clearances.

The minimisation of interruption to railway services during construction is a prime consideration in design.

The Asset Protection Team will require to inspect and comment on before accepting, the design of all permanent and temporary works which could in the event of a mishap fall within 3.0m from the nearest Network Rail asset.

They will also require certification that the design has been checked appropriately to the relevant design category to satisfy safety requirements.

4.4. Clearances

The Asset Protection Team must approve dimensioned plans, elevations and cross sections showing the exact relationship of the construction to the railway. Each dimensional ground point must be capable of identification on site. These standards are quoted in Section 2 of the Work Proposal in Appendix A.

4.5. Line Possessions, Temporary Speed Restrictions and Isolations of Electric Traction Supply

These will be necessary where construction works would actually or potentially interfere with the normal running of the railway. They must be planned well in advance and accord with Network Rail's own Possession Planning Timetable. Associated costs shall be met by the Outside Party.

Any interruptions to rail services that the Railway Industry is prepared to accept will have to be arranged well in advance of the commencement of construction on site.

The pattern of possessions, temporary speed restrictions (TSRs) and isolations agreed by Network Rail will dictate the planning and staging of the work.

TSRs must be avoided wherever possible. Please note that the associated costs can be considerable and designing out the requirement may be more economical.

Only in exceptional circumstances will it be possible to vary the arrangements made, or provide additional possessions, TSRs or isolations, when arrangements for alternations to the train service have been made. Administrative costs may still be incurred if the Outside Party cancels a booked possession, TSR or isolation, especially at short notice, and such costs will be recoverable from the Outside Party.

Network Rail will appoint an Engineering Supervisor for each possession who will be the only person that may say that it is safe for work to commence within 3.0 metres of the nearest rail during that possession. The Outside Party must ensure that the person in charge of the works knows the Engineering Supervisor's identity and enforces compliance with his instructions. The Engineering Supervisor will not give up a possession until he is satisfied that the works are complete and the railway is safe and clear for the passage or trains. The Outside Party must allow adequate time for taking and giving up a possession/isolation when planning the possession work content.

Network Rail must be assured that the work allocated to each period during which rail services are interrupted can be completed within the time allowed, and that there are adequate contingency stages at which works can be suspended and made safe to allow the possession to be given up in the event of over-running or unscheduled curtailment. The Outside Party must keep records of the times of taking and giving up the possessions, duration of and reason for any delays and such other information as the Asset

Protection Team may require. If during a possession or isolation it becomes apparent that the work cannot be completed in the time allowed, the Engineering Supervisor must be informed immediately and given an estimate of the time required make the works safe to give up the possession or the Outside Party must bring in extra resources, the prime objective being to limit the disruption to rail services.

When work is not completed in the time allowed, the Outside Party will be required to pay for any train delays and all other costs arising from the late completion of the works.

4.6. Excavations, Foundations, Piles and Embankments.

Foundations and changes in ground level near a railway track or structure may affect its support system and water drainage. Where this possibility exists, Network Rail will require a soil survey and details of the subsoil and foundations loads. Additionally, work within 10 metres (measured horizontally) of the outside of a tunnel lining will need the approval of Network Rail.

Details of the support zones for a railway track and a railway structure are shown in Section 3 of the Work Proposal (Appendix A).

Railway track and equipment is sensitive to ground disturbance. Particular attention is to be paid to the design and execution of piling or any other ground works to prevent movement of the track or equipment.

4.7. Work at Stations :

The necessity for work at stations should be carefully considered as any proposed alterations to stations are likely to involve an additional acceptance requirement through the Station Change Procedure. This legal requirement allows the Rail Industry to review and comment on the changes proposed. The procedures require the Outside Party to submit a written proposal in sufficient detail for the recipient to evaluate the effect of the change on its business and partners. Generally a broad technical outline and extensive detail akin to the information required to achieve full planning consent is suitable.

Station Change can be a lengthy process and sufficient time should be allowed for this item in any programme.

4.8 Signals :

Due to the complexity of signalling and communications control systems changes to trackwork or alignment and movement of some types of trackside equipment can be very time consuming and expensive and is therefore likely to be prohibitive to many Outside Party schemes. Railway electrical and telecommunications systems are designed to minimise electro-magnetic interference, any equipment proposed to be installed near to the railway

should meet the appropriate legislative standards to prevent interference/ conduction.

If any of the following are to be installed within 20m of the operational railway then details should be submitted to Network Rail who will then establish and advise whether special testing or screening is required to avoid mutual interference :

a) HV cables running parallel to the track
b) Complex telecommunication systems, cables, aerials, masts etc
c) Radio transmitting equipment.

4.9 Lights :

Network Rail reserves the right to request all new or altered lights, including those on moving vehicles and street lights, which may interfere with the vision of staff operating trains and sighting of signalling apparatus to be screened or moved.

4.10 Noise :

As a general rule Network Rail expects any Contractor to comply with the noise levels laid down by their Client and the Local Authority. In and around stations noise levels must be controlled to avoid interference/conflict with all station announcements and alarm systems.
Network Rail's policy on noise and vibration must be adhered to both during construction and for the completed Works.

4.11 Level Crossings and Bridges:

Private occupation and accommodation level crossings may not be used for construction purposes except in conformity with the rights (if any) afforded to the public. Network Rail and the Health and Safety Executive Railway Inspectorate do not support the provision of temporary level crossings generally, or significantly increased use of existing private occupation and accommodation level crossings. Temporary level crossings laid and used under the direction of Network Rail's staff during a possession must be removed completely before the possession is terminated.

Similarly, private occupation and accommodation bridges, either over or under the line, may not be used for construction purposes except in conformity with the rights (if any) afforded to the public. However, erection of a temporary "Bailey" type bridge over the railway would be considered subject to Network Rail Technical Approval process, and an adequate inspection and maintenance regime. Any temporary bridge required for more than 6 months may also subject to the Health and Safety Executive Railway Inspectorate approval in accordance with the requirements of the Railway and Other Guided Transport Systems (ROGS)- See NR/L3/RSE/001 Safety Verification

If a project affects an existing level crossing in any way the design and acceptance procedures which will be involved may become extremely time consuming and should be considered early in the project. Works which may be relevant include service diversions, road re-alignments or any necessary re-signalling but any other work close to a level crossing could also be significant.

4.12 New Tunnels & Undertrack Crossings :
Crossings under Network Rail's tracks and property must be designed and constructed to limit the effects of settlement and to preclude the need for access to and from the tracks during and following construction.

4.13 Train Impact Structures and Loads :
In accordance with current standards, particular attention needs to be paid to the distance of structural supports to the track (nearest rail) as special impact measures will need to be incorporated. Refer to appendices A and C. Normally this will take the form of strengthening the proposed foundation /support or providing continuous upstand wall as protection measures from the impact of a derailed train. In certain circumstances this may be rationalised by risk assessment with the agreement and acceptance of Network Rail.
The structure might also need to be designed to allow for any consequential loss of support created by the effects of the impact of a derailed train.

4.14 New Boundary Fences:
The layout and construction of any boundaries should allow the Outside Party to maintain its structures and equipment without the need for wayleaves or special works procedures. Similarly it is strongly recommended that the layout of the development boundaries should allow for maintenance of the development without the need for possession of the railway.
Line boundary fences should be set out to fully enclose embankments, cuttings or other support structures with due allowance also made for maintenance access to any drainage channels and support structures. Railway fences shall be maintained throughout the work and permanently reinstated or, if required, upgraded, to the Asset Protection Team's satisfaction and Network Rail's current standards.

See NR/L2/TRK/5100 [Issue: 2] Management of Fencing and Other Boundary Measures , and BS1722, especially Part12

4.15 Parapets :
Parapets should be designed in accordance with the standard BD 52/93, the Design of Highway Bridge Parapets. Reference should also be made to TD 19/06, BS 6779 and BS EN 1317 as appropriate. To reduce the possibility of trespass onto the railway the parapets should have steeple type copings and the design should preclude any items or holes that may be used for hand and/or footholds.

Ideally parapets and anti-vandal panels should be designed so that they may be erected at the same time as the bridge edge beams to reduce the need for temporary works over the railway and to reduce or eliminate the possessions needed for their installation.

To reduce delays to trains from acts of vandalism footbridges may need to be fully enclosed /hooded over the railway span and on approaches where close to the railway. This is especially relevant in areas prone to vandalism.

4.16 Drainage :

All new or altered drainage should direct water away from Network Rail infrastructure and into the Local Authority drainage systems. Proposals to drain water or connect into the railway's track drainage system will not be permitted. In exceptional circumstances proposals to discharge water onto Network Rail Infrastructure may be considered by the Asset Protection Team, where for example soakaways may be used in positions agreed in advance with Network Rail.

Soakaways are not acceptable where the following apply :

a) Excavation could undermine Network Rail's structural support zone or adversely affect the bearing capacity of the ground
b) There is any risk of accidents or other acts leading to potential pollution of Network Rail's property/infrastructure
c) It could adversely affect the water table in the vicinity of Network Rail's structures or earthworks.

4.17 Vibration and Settlement :

This guidance applies to most type of work undertaken above, below and/or adjacent to the tracks but cannot be exhaustive.

With regard to settlement and/or vibration design statements should identify at the earliest stages predicted settlement and/or vibrations based on :

a) Soils investigation
b) Envisaged methods of working
c) Previous experience
d) Liaison with Network Rail engineers

A commentary should be provided discussing the anticipated effects that these predicted settlement and/or vibrations may have on structures within the zone of influence.

In most cases it is likely that the settlement and/or vibration predictions and resultant effects will be negligible. However, shallow tunnels, piling works, subways and new retaining walls to replace embankments are likely to result in high settlement and/or vibration predictions and designs and methods of working should be developed to prevent damage to the infrastructure.

The Outside Party (and their design consultants and contractors) will be responsible for:

a) Soils investigations
b) Identifying the structures that are at risk

c) Track monitoring where required
d) Vibration monitoring of structures

4.18 Other Requirements :

(i) Any work limiting access to operational lines and structures requires the consent of Network Rail.

(ii) Any alteration, disturbance or attachment to railway structures and fixed equipment requires the consent of Network Rail.

(iii) The design must take account of the effects of works on existing trees and their roots, whether on the development site or Network Rail land adjoining the site.

4.19 Contractors

For any work involving Operational and/or Designated Land, the terms and conditions of contracts and sub-contracts must include the Special Requirements(Appendix B), which must be quoted complete and without amendment.

4.20 Supervision and Communications

In so far as the works may affect the safety of the railway infrastructure or operation (which shall be agreed before any works commence), Network Rail may decide to supervise all or part of the construction process. Such works shall not commence until agreed railway safety measures are in place. Network Rail's associated costs are rechargeable to the Outside Party.

Work on railway land and, in particular, which will either involve any person approaching closer than 3.0 metres from the nearest rail, or might introduce any obstruction within 3.0 metres of the nearest rail, may only be undertaken with the prior written agreement of Network Rail and in accordance with Site Access requirements appropriate to the site.

After commencement of work any communication concerning matters involving these Guidance Notes and the Special Requirements shall be between Network Rail's and the Outside Party's agents on site except, in an emergency, Network Rail's agent may give instructions directly to the contractor in the interests of railway safety.

4.21 Working Adjacent to an Electrified Railway

For the safety of all site staff, the Outside Party must ensure that the safety arrangements agreed with Network Rail are adhered to. When the railway adjacent to the site is electrified, all rails and wires must be treated as live and dangerous to life at all times unless an isolation permit

has been issued.

If circumstances change during the course of the works, they must be suspended until Network Rail's and the Outside Party's agents have agreed alternative safety arrangements.

APPENDIX A

WORK PROPOSAL FOR USE DURING INITIAL DISCUSSIONS BETWEEN THE DESIGNER AND THE ASSET PROTECTION TEAM

1. Preamble

1.1. This list is non-exclusive but highlights the particular points that the Asset Protection team would wish to raise with a designer during an initial meeting. Any additional items that the designer thinks may affect the railway should be added.

1.2. Prior to construction the designer is required to submit full details of his design against a checklist developed from the initial outline with the addition of the particular points arising during the initial discussions.

1.3. The checklist forms the basis on which Network Rail can consider whether or not to consent to the Works. It must therefore identify all the factors critical to the safety and stability of Operational and Designated land, the retaining structures and the line, as well as the measures and standards proposed. The subsequent detailed examination of the design proposals will enable the requirements for possessions and temporary speed restrictions to be assessed more precisely and for any additional 'Particular Requirements', additional to the 'Special Requirements' and any other limitations to be written into the Employer's contract. The designer must accept that Network Rail will rely on the information provided as the basis of exercising consent, if given, and he has a duty to ensure that it is comprehensive and accurate.

1.4. Any changes in location, design or the programme of the development after the first submission must be noted for the Asset Protection team acceptance, together with a complete and up to date version of the design.

1.5. The location plan accompanying the checklist to show:-

1.5.a. intended access for construction;
1.5.b. position of proposed buildings in relation to actual or proposed operational lines;
1.5.c. dimensions enabling the building proposed nearest the line to be set out on the ground.

2. Clearances

2.1. Clearances are of prime importance to the safe operation of the railway. The

obligatory clearances, outside which the whole project must be kept, are quoted here for convenience to avoid the need to extract this information from other documents.
The dimensions quoted may need to be increased if required by the railway infrastructure.

2.2. For the project:

~~2.2.a. Minimum of 4.86 metres (5.88 metres for high-speed international standard routes) vertically above the existing highest rail level, or 1.00 metre above existing Overhead Line Equipment (OLE). See diagram 2.1, dimension "a".~~

Guidance superseded by Interoperability Regulations - please consult Asset Protection Engineers for site specific guidance.

2.2.b. Desirable horizontal clearance of 4.5 metres (7.0 metres for high speed international railways) from the nearest rail. See diagram 2.2, dimension "c".

2.2.c. Requirements for underground or overhead developments to be agreed with Network Rail.

2.2.d. Where a road is designed to run parallel to a railway, the clearances and barriers shall be agreed with Network Rail, and shall meet the current containment requirements following risk ranking for vehicle incursion.

2.3. For construction (including temporary works):

~~2.3.a. Minimum of 4.64 metres (5.58 metres for high speed international standard routes) vertically above the highest rail level, or 680mm above existing OLE. See diagram 2.1, dimension "a".~~

Guidance superseded by Interoperability Regulations - please consult Asset Protection Engineers for site specific guidance.

2.3.b. Temporary fence or safety screen at 3.0 metres from the nearest rail (or other such agreed distance) preventing site personnel and plant from approaching the track. See diagram 2.2, dimension "b".

2.3.c. No part of any crane or other plant nor any temporary works must encroach or be able to fall within 3.0 metres of the nearest rail (even by accident or as a result of system failure).

2.3.d. Within 4.5 metres of the nearest rail all permanent and temporary structures must be designed to withstand a collision loading. See Appendix C, Supplement No.2 and diagram 2.2 dimension "c".

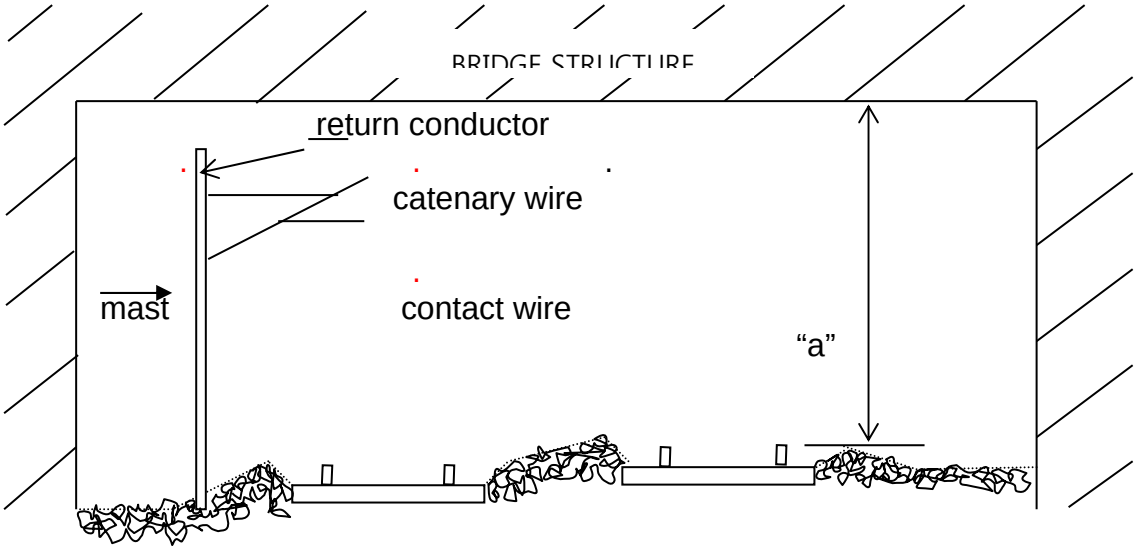


DIAGRAM 2.1 MEASUREMENT OF VERTICAL CLEARANCES

i) Minimum headroom “a” measured vertically above highest rail, or

ii) One metre above highest of:

a) top of OLE mast (if directly under bridge)

b) catenary wire

c) return conductor

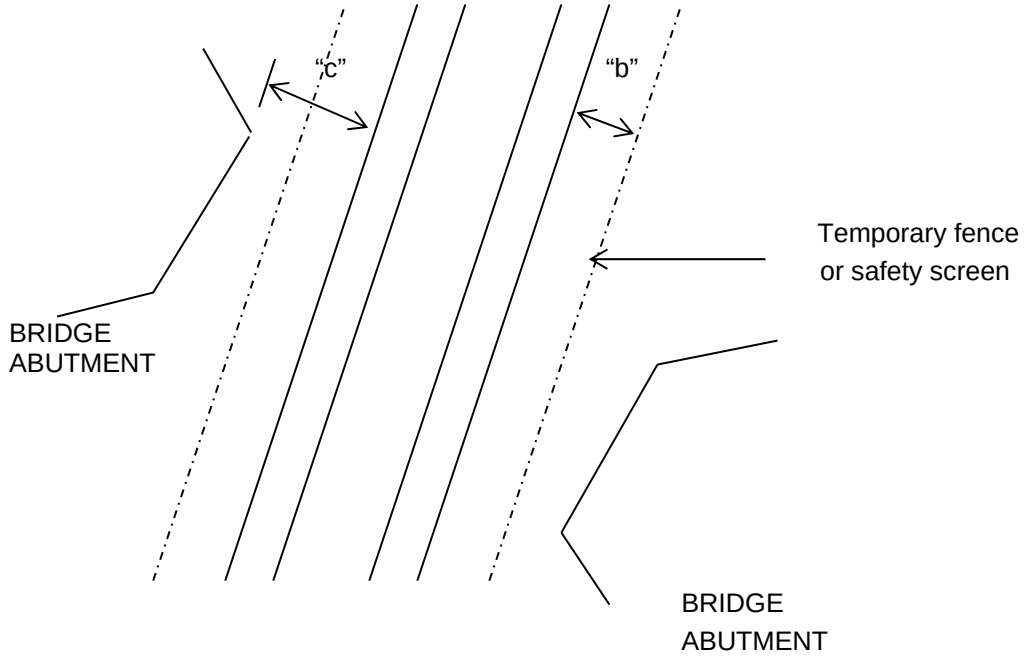


DIAGRAM 2.2 MEASUREMENT OF HORIZONTAL CLEARANCES

Measurement to be perpendicular to the rails

i) "b" measured from nearest OLE on electrified lines

ii) "c" measured from abutment to nearest rail

2.3.e. No work may be carried out within 3.0 metres of the OLE without special arrangements with Network Rail.

This clearance must be suitably increased where the following activities are to be undertaken:

- assembly and dismantling of scaffolding, cranes or other equipment, tools or materials,
- lopping of trees or removal of fallen debris.

Either the OLE must be isolated or an effective safety screen must be provided. There must be no possibility of objects or liquids falling on the overhead line from above.

2.4. Network Rail's Asset Protection team will advise on acceptable screens and barriers and on circumstances where clearances may have to be increased. (See Appendix C, Supplement No.1).

2.5. All work must be carried out outside the clearances agreed with the Asset

Protection team. Any encroachments must be corrected immediately.

2.6. Full details of any tower cranes to be used on the site together with the two copies of a plan showing the relevant jib radii in relation to the railway are to be submitted for the Asset Protection team acceptance.

3. Excavations, Foundations, Piles and Embankments—Support Zones

3.1. The support zone of a railway is defined as follows:

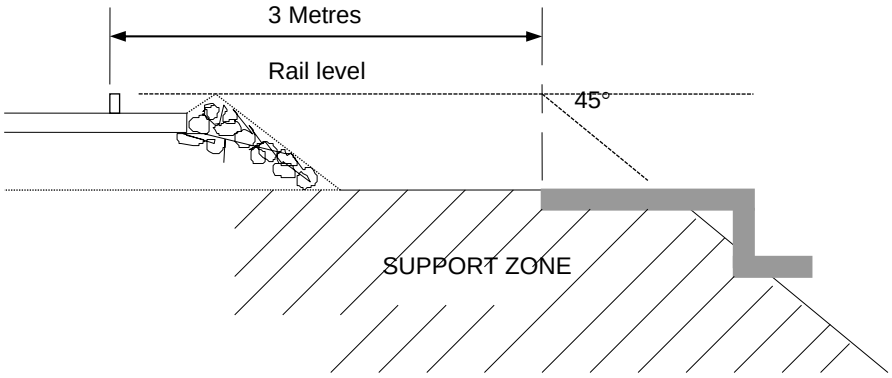


DIAGRAM 3.1—SUPPORT ZONE OF A RAILWAY TRACK

No foundation, either permanent or temporary, may penetrate this zone without Network Rail's written approval after submission of details.

3.2. Proposals must ensure:

3.2.a. structural stability
3.2.b. safety of passing rail traffic
3.2.c. stability of cables and cable troughing, walkways and overhead line structures.

3.3. Excavations having a face less than 6.0 metres from the nearest rail will not be permitted without prior approval based on:-

3.3.a. location and extent of the excavation
3.3.b. proposals for temporary support
3.3.c. method of excavation
3.3.d. specification of backfilling.

3.4. No foundations (including piles) are to affect existing railway structures without acceptance by Network Rail, particularly with regard to:

3.4.a. load imposed by them affecting the stability of the line or adjacent operational land;
3.4.b. penetration of the support zone of an existing structure (see diagram 2) or increase in the loading on an existing foundation.

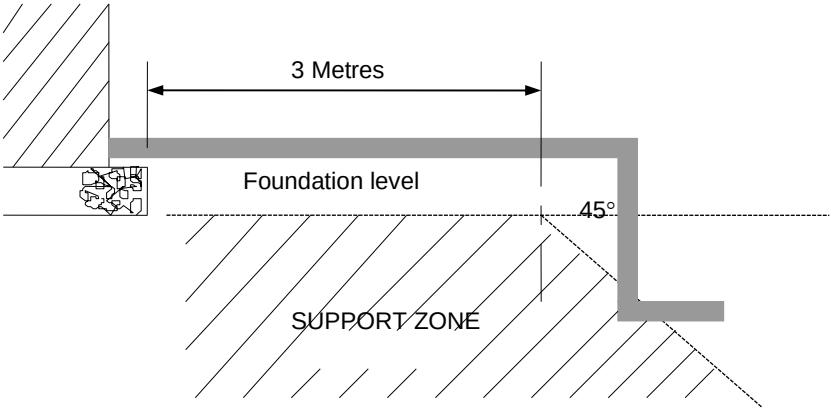


DIAGRAM 3.2—SUPPORT ZONE OF A STRUCTURE

3.5. The following details are to be included in submissions to the Asset Protection team:

3.5.a. excavations in front of bridge abutments and retaining walls;
3.5.b. foundations adjacent to sloping faces of cuttings and embankments. (The superimposed loads, construction method and resultant disturbance must not be detrimental to the stability of the slope);
3.5.c. proposals for a foundation to intersect a watercourse or drain, even if the latter can be diverted or protected;
3.5.d. driven or bored piles and ground improvement schemes of any kind. (Displacement piles will not be allowed where there is risk of disturbance of Network Rail's structures or track). Clearances of the piling rig must be taken into account. Note that Possession of the line is often necessary during piling;
3.5.e. dewatering schemes. (Pumping and well pointing will not be allowed without the permission of Network Rail).

WORK PROPOSAL FOR USE DURING INITIAL DISCUSSIONS BETWEEN THE DESIGNER AND THE ASSET PROTECTION TEAM

Name of project:

Submitted by:
Tel:
Fax:
Address:

Asset Protection team:
Tel:
Fax:
Address:

Outside Party:

		*	REMARKS INCLUDING DATES OF STAGE PROPOSED
1	**PROGRAMME**		
	Target date for commencement on site		
	Other key dates		
2	**DRAWINGS**		
	(of any part which could affect the stability, maintenance or operation of the railway)		
	If outline proposal, are scheme drawing and design brief available? (If not, when?)		
3	**LOCATION OF ACCESS (see preamble 1.5)**		
	Is the site on railway operational land?		
	If not, how is operational land affected?		
	Will new temporary access be required?		
	Will new permanent access be required?		
4	**FOUNDATIONS**		
	Types		
	Strip		
	Raft		
	Block		
	Piled		
	Other: Describe		
	Are sub soil conditions known?		
	Is it necessary to investigate sub soil?		

***** Tick or write Yes or No in this column as appropriate. Delete question where not applicable.

		*	REMARKS INCLUDING DATES OF DESIGN STAGE PROPOSED
5	**PENETRATION BY FOUNDATIONS**		
	Support zone of an operational line (see preamble 3)		
	Support zone of structure (see preamble 3		
	State whether existing foundation depth is known or assumed		
	Face of a cutting slope		
	Ground adjoining top of a cutting		
	Ground adjoining bottom of a cutting		
	Face of an embankment slope		
	Ground adjoining top of an embankment		
	Ground adjoining bottom of an embankment		
6	**DRAINAGE AND SERVICE ROUTES AFFECTED**		
	Watercourse		
	Change in amount & flow characteristic		
	Drainage		
	Change in amount & flow characteristic		
	Gas supply		
	Water supply		
	Electrical supply		
	Signalling installation		
	Telecommunications		
	Other services, describe		
	Drainage and service routes provided, detail		
7	**EFFECT ON ACCESS**		
	Will the work affect pedestrian access by public or staff?		
	Will the work affect access by road vehicles?		
	Will excavations be required in roadways, car parks?		

***** Tick or write Yes or No in this column as appropriate. Delete question where not applicable.

		*	REMARKS INCLUDING DATES OF DESIGN STAGE PROPOSED
8	**EFFECT ON EXISTING STRUCTURES**		
	(Specify structure affected by proposal)		
	Change in amount of water passing railway structure		
	Requiring alteration		
	To be used for attachment		
	Access for inspection or maintenance permanently restricted		
	Access for inspection or maintenance temporarily restricted		
	Other effects, describe		
	Investigations, inspections, maintenance and/or access to railway land required in future		
9	**PILING**		
	Will any piling be nearer an operational line than the penetration below rail level?		
	Vibration effects on railway property and equipment		
10	**WORK OR ACTIVITY NEAR THE LINE**		
	Permanent works		
	Temporary works		
	Face of an excavation		
	Mobile plant		
	Part of a crane or its load		
	Personnel		
11	**SPECIAL ARRANGEMENTS**		
	Will any work be within 3 metres of the nearest rail?		
	Will any work be within 3 metres of any overhead electrified line equipment?		
	Are undertrack crossing required?		

***** Tick or write Yes or No in this column as appropriate. Delete question where not applicable.

		*	REMARKS INCLUDING DATES OF DESIGN STAGE PROPOSED
12	**OPERATING REQUIREMENTS**		To be arranged
	(Indicate only that action is required)		
	Possessions		
	TSRs		
	Isolations of electrical traction equipment		
	Engineer's train		
	Rail crane		
13	**PROTECTION REQUIREMENTS**		To be arranged
	(Indicate only that action is required)		
	Lookoutmen		
	Handsignalmen		
	Entries in the notices to Infrastructure staff		
	Site warnings		
	Barriers		
	Other, describe		
	Requiring alteration		
14	**SUPERVISION**		To be arranged
	(Indicate only that action is required)		
	Engineering Supervisor		
	Controller of Site Safety		
	Person in charge of Possession		
15	**FIRE PRECAUTIONS**		
	Does the work involve any abnormal fire hazards/		
	Is a fire precautions liaison manager required?		
	Is a sub-surface or underground location affected?		

***** Tick or write Yes or No in this column as appropriate. Delete question where not applicable.

APPENDIX B

SPECIAL REQUIREMENTS IN RELATION TO NETWORK RAIL -APRIL 2004

INTRODUCTION

The railway is a particularly hazardous environment. The danger from train movements, overhead power lines, buried cables and electrified rails at ground level must not be underestimated. The Industry's safety policy and safety management systems require the enhancement of some safety legislation and the following Special Requirements in Relation to Network Rail indicate areas where the legislative requirements are strengthened.

These requirements apply to all types of work on Network Rail land i.e. surveying, inspection, construction and maintenance.

1. DEFINITIONS

In these Special Requirements, the following terms shall have the meanings assigned to them.

a. 'Contractor' means any person or company to whom a contract for the whole (or any part) of the Works is let and for whom the Other Party is the employer.

b. 'Isolation' means planned arrangements for a predetermined period for the interruption of traction electricity between defined locations .

c. 'Network Rail Company Standards' means a standards document issued by Network Rail for its own use (as amended by Network Rail from time to time) in relation to the Railway as a whole which applies to the performance of the Works.

d. 'Network Rail's Representative' means a person duly authorised to act on Network Rail's behalf.

e. 'Other Party' means a party which has contractual obligations to Network Rail under a works agreement in respect of the design, construction and maintenance of a bridge over or under the Railway Infrastructure.

f. 'Possession' means planned safety arrangements which control or prevent the normal movement of rail traffic on the Railway Infrastructure between defined locations and for a pre-determined period.

g. 'Railway' means the Railway Infrastructure, Network Rail's activities in carrying out the operation, maintenance and replacement of the Railway Infrastructure, and traffic on

the Railway Infrastructure.

h. ‘Railway Infrastructure’ means Network Rail’s infrastructure and operational track.

i. ‘Safety Personnel’ means the personnel required to implement safe working practices on or about the Railway Infrastructure.

j. ‘Service’ means electricity cables, gas pipes, water pipes (including piped sewage), other pipelines or signalling telecommunication plant cables and equipment irrespective of owner.

k. ‘Temporary Speed Restriction’ means a planned restriction on the speed of rail traffic between defined locations for a specific period of time.

l. ‘The Works’ means the design and construction, and where the Other Party is obliged to carry it out, the maintenance of a bridge over or under the Railway Infrastructure and all tasks incidental thereto.’

m. ‘Work Site’ means any lands and other places, on, under, in or through which the Works are to be executed.

2. ACCESS

2.1. Written Authority.

Before any activity is undertaken in connection with the Works requiring access to land in the ownership of Network Rail, written authority shall be obtained from Network Rail’s Representative for access to such land including the conditions under which such access will be granted.

2.2. Procedures For Safe Access To Railway Property.

Robust procedures must be established and maintained to ensure safe access for all persons to land in the ownership of Network Rail in connection with the Works and such procedures must be submitted to Network Rail’s Representative for written approval prior to access being granted.

2.3. Trespass.

No person shall be permitted to access land in the ownership of Network Rail beyond the agreed limits of the Work Site or access route for the duration of the Works.

2.4. Crossing the Railway Tracks.

No person shall cross or convey constructional plant and/or materials across or along any railway track unless special arrangements are made and written consent obtained from Network Rail.

Where public rights of way exist over occupation and/or accommodation level crossings and/or bridges, these crossings shall only be used in the way that they are intended to be used by the public unless special arrangements are made and written consent obtained from Network Rail.

Only in very exceptional circumstances will the provision of a temporary level crossing be permitted. Where Network Rail is prepared to accept the provision of a temporary level crossing for constructional traffic and/or public use sufficient time must be allowed for obtaining the appropriate approvals and the period of notice required by Network Rail for making the necessary arrangements for carrying out the work.

3. RISK MANAGEMENT

3.1. Robust Procedures for Safe Access and Safe Working Practices.

Systems, procedures and working practices that avoid risk to the Railway arising from the Works and that protect those persons involved in the execution of the Works from risks arising from the Railway must be developed and implemented in conjunction with the Contractor's Health and Safety Plan, as defined in the Construction (Design and Management) Regulations 2007 (as amended from time to time). These shall be submitted to Network Rail's Representative for written approval prior to the Works being undertaken.

Specific training (i.e. Personal Track Safety Training) and competency requirements apply to persons who work on the Railway Infrastructure or require access on or near the line. The training and competence requirements for the Works must be agreed in writing with Network Rail's Representative before access is allowed.

3.2. Services.

A full survey must be undertaken to ascertain the location and nature of all Services within the Work Site or access route(s). All necessary protective measures must be incorporated and implemented to the satisfaction of the Network Rail's Representative.

The degree of existing protection provided to Services on or about the Railway Infrastructure can vary. Therefore, Services must not be interfered with or moved unless authorised by Network Rail's Representative.
Additional precautions must be taken by the Contractor to establish the existence,

position and location of any buried Services which may be present before any excavation, or the driving of objects into the ground, is undertaken. All necessary precautions shall be taken by the Contractor to avoid damaging buried Services when excavating, surcharging and driving objects into the ground.

Should any unknown or unexpected Service be discovered or uncovered during the Works, the works in the vicinity of the Service must stop, ownership must be established, Network Rail and the owner of the Service must be informed and appropriate precautions for protection must be taken prior to recommencing the works.

Any Service not diverted must be supported, maintained, protected as necessary and kept in working order in its existing location.

Where temporary or permanent service diversions are necessary a method and routing specification must be agreed with the Network Rail's Representative. The service provided shall be maintained at all times unless otherwise agreed with Network Rail's Representative.

Any equipment (Cable Avoiding Tools (CATS) for example) utilised to establish the position of buried Services must be of a type approved by Network Rail for use on the Railway Infrastructure.

3.3. Use of Explosives.

Explosives must not be used on or about the Railway Infrastructure without the prior written agreement of Network Rail. Evidence of full compliance with all current legislation relating to the acquisition, storage, keeping and use of explosives must be provided.

3.4. Protection to Railway Equipment.

Special protection to prevent damage to the tracks, signal and telecommunication equipment and all other railway equipment and contamination of track ballast during the execution of the Works shall be designed, constructed, maintained and removed on completion of the Works or as otherwise directed by Network Rail's Representative.

3.5. Confined Spaces.

A considerable number of confined spaces exist on or about the Railway Infrastructure. In carrying out the Works all employers and contractors must fully comply with the requirements of the Confined Spaces Regulations 1997 and the associated Approved Code of Practice.

4. PROGRAMMING OF THE WORKS

4.1. Possessions, Isolations and Temporary Speed Restrictions.

The use of Possessions, Isolations and Temporary Speed Restrictions should be avoided to minimise disruption to railway traffic. If the need for Possessions, Isolations and Temporary Speed Restrictions cannot be avoided then they shall only be carried out on dates and at times agreed in writing by Network Rail's Representative.

The notice periods for booking of Possessions, Isolations and Temporary Speed Restrictions are dependent upon the duration and location of the Works. At the earliest opportunity advice should be sought from Network Rail's Representative as to the requirements for booking Possessions, Isolations and Temporary Speed Restrictions.

4.2. Initial Programme.

An initial programme for the Works must identify the key construction activities timing constraints and indicate when Possessions, Isolations and Temporary Speed Restrictions are being sought.

4.3. Programme Development.

The programme shall be developed taking account of comments from Network Rail's Representative and must be reviewed from time to time as required.

Network Rail may cancel or alter the dates and times of any agreed Possessions, Isolations and Temporary Speed Restrictions at short notice, if this proves necessary because of the overriding operational requirements of the Railway. If this occurs alternative arrangements will be made as soon as the situation permits.

5. METHOD STATEMENTS

Method statements must include a comprehensive step-by-step account of how the relevant part of the Works will be executed (incorporating where necessary maintenance and subsequent removal) including: -

- Working times
- Access routes and location plan
- Plant usage and backup (including equipment and operator certificates)
- Superintendence, inspection and monitoring arrangements

- Temporary works

and as appropriate supported by: -

- Design statements
- Drawings and cross sections
- Site and Ground Investigation reports including geotechnical interpretive reports
- Calculations
- Settlement, noise, vibration predictions
- Design check certificates
- Risk mitigation measures.
- Storage, movement and clearance of materials and equipment
- Temporary or permanent diversion of services
- Earthing and bonding arrangements near electrified equipment
- Use of Surveying Equipment

Method statements for works to be carried out in Possessions, Isolations or Temporary Speed Restrictions must also include a detailed programme for each work item, which must identify critical path activities and include contingency planning e.g. standby plant and equipment etc.

Method statements must be submitted for full consideration, comment and/or approval by Network Rail's Representative in sufficient time to allow for comments to be incorporated and revised proposals to be resubmitted as necessary.

6. SITE MANAGEMENT

6.1. Site Representation.

At the request of Network Rail, the Contractor or the Other Party must appoint a full time senior representative at the Work Site during the course of the Works.

6.2. Training.

Prior to the commencement of and during the Works, familiarisation training and briefings shall be given to everyone who has access to the Work Site. Records of training and briefings are to be retained on the Work Site for inspection. Certain activities carried out during the Works may require railway specific training. These activities will be identified and notified to the Contractor by Network Rail's Representative when the initial programme of works is submitted.

6.3. Contact Names and telephone numbers.

Prior to commencement of work on the Work Site Network Rail's Representative must be provided with a list of names and telephone numbers for personnel responsible for organising remedial action in the event of an emergency on the Work Site when the Work

Site is unattended.

6.4. Accommodation for Network Rail's Representative.

Serviced accommodation for the use of Network Rail's Representative shall be provided in line with the requirements of and to the satisfaction of Network Rail.

6.5. Advertisements.

Advertisements must not be displayed on or about land in the ownership of Network Rail without the prior written consent of Network Rail.

6.6. Working Time.

The Railway (Safety Critical Work) Regulations 1994, and the supporting guidance documents, place strict limitations upon the hours that can be worked by persons who undertake Safety Critical Work as defined by the regulations. During the Works contractors who have employees carrying out Safety Critical Work must be able to demonstrate compliance with the regulations.

6.7. Knowledge and Understanding of English.

Supervisory staff on the Works must have sufficient knowledge of English (both spoken and written) to understand and relay safety information, instructions and training to all personnel.

6.8. Alcohol and Drugs.

All personnel engaged in the Works must comply with Network Rail's current Policy on Alcohol and Drugs. A copy of this will be provided by the Network Rail's Representative.

6.9. Clothing and Personal Protective Equipment.

All persons engaged in the Works must wear high visibility clothing of an approved colour, type and design (including retroreflective strips) acceptable to Network Rail. The personnel protective clothing must be worn correctly and kept in a clean condition.

6.10. Removal of Contractor's Employees.

Network Rail may object to and require the immediate removal from the Work Site of any person thereon who in the opinion of Network Rail's Representative is not in a fit condition to carry out their duties, or is liable to endanger their own health and safety or that of others. Such persons will not be permitted further access to the Work Site without the written agreement of Network Rail's Representative.

6.11. Registers and Certificates.

All registers, site diaries and certificates relevant to the Works must be available for

inspection by Network Rail at the Work Site or other location agreed with Network Rail's Representative.

6.12. Screens, Hoardings and Lights.

Temporary screens, hoardings, guard rails, barriers, fans, protective sheeting, fencing, lighting, etc, necessary to ensure the safety and protection of the Railway, the Works and all persons in the vacinity of the Works shall be designed, constructed, maintained and modified as appropriate and removed when no longer required in accordance with agreed method statements and shall not affect signal sighting, places of safety or affect or impair the vision of train drivers.

6.13. Notifications of Accidents to Network Rail.

All accidents and occurrences causing damage to property or potentially affecting the safe working of the Railway; together with all Reportable Injuries and Dangerous Occurrences as defined in the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (as amended from time to time) must be reported to Network Rail

Details of all such events shall be recorded in a format agreed with Network Rail's Representative and a copy sent to Network Rail within 24 hours of any such event.

6.14. Storage and Clearance of plant equipment and materials.

All plant equipment and materials shall be kept safe and secure when not in use and shall be located so as to avoid opportunity for trespass or vandalism on or directed against the Railway or land in the ownership of Network Rail.

7. WORKING METHODS NEAR THE RAILWAY

7.1. Use of Plant and Equipment Adjacent to the Railway Infrastructure.

No construction plant, equipment or materials shall be used or handled in such a manner that in the event of mishandling or failure they come within a vertical plane 3.0 metres from the nearest edge of the nearest rail on which trains may run or, on a station platform, within 3.0 metres of the platform edge unless previously proposed in a method statement which has been accepted by Network Rail's Representative. (refer to paragraph 8.3.1)

7.2. Stability of Track.

Excavations near the Railway Infrastructure shall be in accordance with agreed method statements and not commence until all measures required to monitor and maintain the stability of the track and/or structure have been implemented and Network Rail's Representative has indicated that there is no further objection to proceeding with the excavation work.

7.3. Emergency Action.

A detailed procedure for dealing with emergencies relating to the Worksite shall be produced in consultation with Network Rail's Representative. This procedure shall be accepted in writing by Network Rail before work starts and shall be reviewed and updated as circumstances vary. Key actions shall be set out on a poster to be prominantly displayed in locations to be agreed with Network Rail's Representative. These must include the method of stopping trains in the event of an incident that could affect the safety of trains and/or persons and, in the case of an electrified line, how to arrange to have the current switched off.
All staff and operatives shall be made fully conversant with this procedure. Auditable checks should be undertaken at intervals agreed with Network Rail's Representative to monitor this understanding and evidence thereof shall be maintained on site and available for inspection by Network Rail's Representative.

7.4. Rail Traffic During a Possession or Isolation.

During a Possession it may be necessary for engineers trains and/or on-track machines to pass through the Work Site by prior arrangement. This will necessitate the temporary clearance of the railway track and cessation of those activities that could affect their passage or the safety of personnel on or near the line.

8. ELECTRIFIED RAILWAYS

8.1. Electric Traction Equipment.

Attention is drawn to the presence in some areas of electric traction equipment associated with either overhead line equipment above and at track level and/or third or fourth conductor rails at track level. Either system carries a potentially lethal electric current and the close proximity to this equipment can cause death or severe injury.

Warning notices acceptable to Network Rail shall be erected in prominent positions agreed by Network Rail's Representative.

All requirements as advised by Network Rail as to the earthing and bonding (or electrical segregation) of metalwork and foil covered sheet materials shall be complied with.

8.2. Robust Procedures for Safe Access and Safe Working Practices.

Further robust procedures (in addition to those referred to in paragraph 2.2) shall be established and maintained to ensure safe access for all persons to the Railway Infrastructure and safe working practices where the Railway Infrastructure is electrified. These procedures must be submitted to Network Rail's Representative for written approval prior to the Works being undertaken.

8.3. Precautions.

Electric traction equipment is charged at high voltage and unless Isolation and permit to work arrangements are in force shall be treated as being live at all times and the following precautions shall be observed: -

8.3.1. Overhead Line Equipment.

Work shall not be carried out, cranes or other plant erected, operated and/or dismantled or materials stored within the prohibited space which is that space within a radius of 3.0 metres of the live overhead equipment together with anywhere vertically above this space.

The figure of 3.0 metres used in determining the prohibited space shall be increased by the length of any tool, equipment and/or material being handled. However, work on the track, platforms, walkways and the like below the overhead equipment is permitted without special precautions provided that tools, equipment and/or materials are not at any time raised above head height.

Long objects, which shall include but not be limited to, pipes. scaffolds, poles, ladders and/or long handled tools or any object of such length that if carried vertically could infringe on the prohibited space shall be carried horizontally below head height.

Electrically conductive surveying equipment shall not be used within 3.0 metres of any overhead line equipment or any rail.

Any disturbance of or attachment to any equipment forming part of the electric traction system shall only be carried out with the full consent of Network Rail.

8.3.2. Third or Fourth Rail Electrification.

Work in the vicinity of third or fourth rail electrification will involve the provision of special protection or isolations to the equipment.

Electrically conductive surveying equipment shall not be used within 3.0 metres of any rail including electrified third rail.

8.4. Protective Screens.

At the sole discretion of Network Rail's Representative it may be appropriate for protective screens adjacent to overhead line equipment or third /fourth rail electrification to be provided to enable certain works to continue without Isolations being required.

8.5. Crash Decks.

At the sole discretion of Network Rail's Representative it may be appropriate for crash decks to be provided to enable certain works to be carried out above the

Railway without Possessions and/or Isolations being required.

8.6. Temporary Access Structures.

At the sole discretion of Network Rail's Representative, it may be appropriate for a temporary access structure above the overhead line equipment to be provided to permit continued working without Isolations being required.

8.7. Erection and Removal of Screens and Platforms.

Erection, inspection, maintenance and removal of screening and/or platforms and/or access structures shall be carried out under the protection of Isolations and Possessions unless otherwise agreed by Network Rail.

APPENDIX C

The following supplements are intended to provide advice on suitable design criteria. However, they do not relieve the designer of their responsibilities under CDM to ensure that the design(s) is/are fit for purpose and proposed in accordance with current standards and legislation.

CONSTRUCTIONAL REQUIREMENTS
SUPPLEMENT NO.1
SCREEN FOR ELECTRIFIED LINES

This supplement is included to assist designers in designing screens to be erected alongside overhead electrified line equipment. It gives the design criteria to be used together with an indication of certain other of Network Rail's requirements. In each case, however, designers should produce their own design and working drawings to suit the site conditions and submit these to Network Rail for acceptance.

Design criteria

As a minimum, the safety screen shall be designed to comply with BS 5975 "falsework" adopting the requirements for vehicle crash barriers in accordance with the Designer's Risk Assessment in addition to any required wind loading.

Notes

1. The sketches are not to scale.

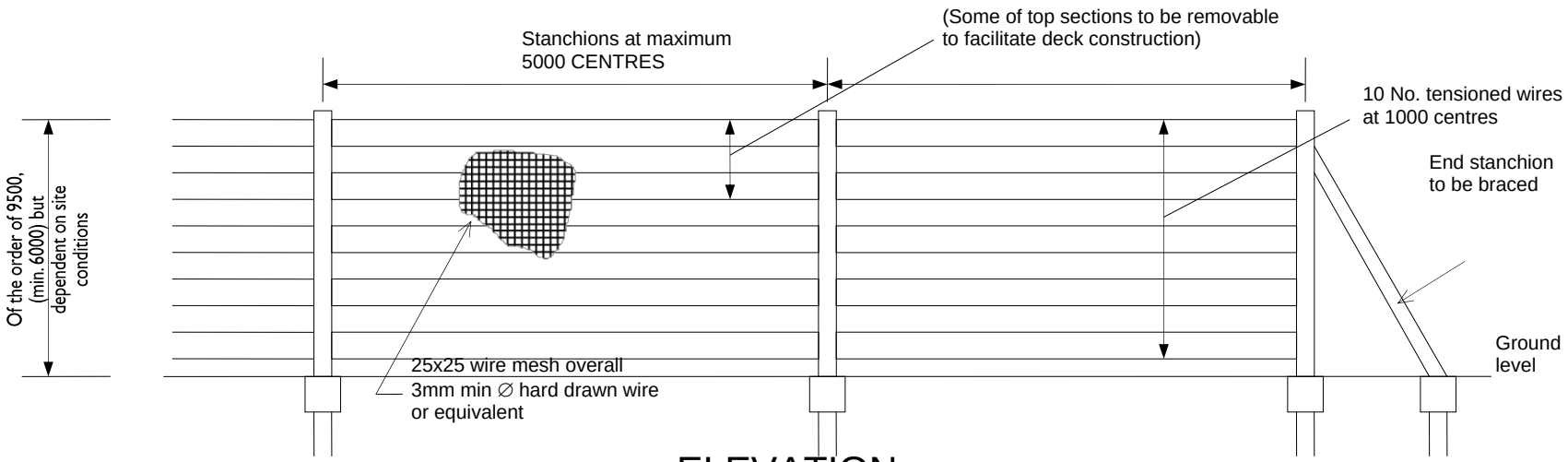
2. All dimensions are in millimetres.

3. The sketches are to be read in conjunction with the Special Requirements.

4. All metalwork is to be isolated and/or bonded to the satisfaction of the Network Rail's Electrical Engineer.

5. Typical arrangements only are shown; each application is to be detailed according to site conditions.

6. Full design and working drawing are to be produced by the designer and submitted to the Asset Protection team for approval, together with the appropriate design and check certification, stating the category of check that has been carried out on the design.



ELEVATION

ALTERNATIVE SECTIONS

* The dimensions of 3000 from nearest running edge, or nearest live overhead equipment, to the face of the screen is the desirable minimum and should be adhered to wherever possible. For speeds up to 160km/h, this may be reduced to 2000 from nearest running edge, or 2750 from nearest live overhead equipment, provided that a place of safety is provided on the opposite side of the track.

CONSTRUCTIONAL REQUIREMENTS
SUPPLEMENT NO. 2
GUIDELINES FOR THE DESIGN OF SUPPORTS FOR STRUCTURES BUILT OVER OR CLOSE TO RAILWAY LINES

General

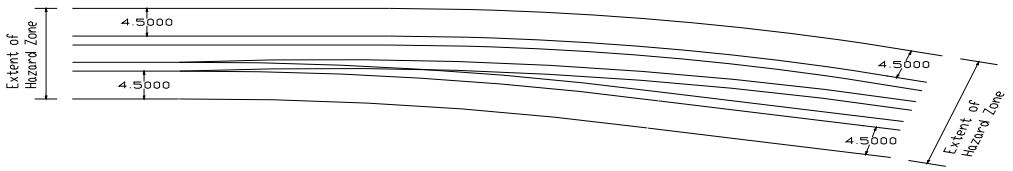
These requirements relate to accidental loading arising from collisions from railway traffic and apply to the supporting structures for new bridges or structures constructed over or alongside railway tracks. They should be applied to new footbridges where reasonably practicable taking into account the nature of the rail traffic and the track layout adjacent to the bridge. The requirements take account of the following:

the definition of the hazard zone where there is the greatest risk of impact;

the need for columns and piers to withstand the effect of light impacts that might occur from derailed coaches or freight wagons without sustaining irreparable damage;

the prevention of a progressive collapse of the superstructure in the event of a major accident that results in the loss of a support.

Wherever possible, supports carrying any structure over or alongside railway tracks must be placed outside the hazard zone.
The hazard zone shall be assumed to extend for a width of 4.5m from the edge of the outside rails. All supports located between railway tracks must be considered to be inside the hazard zone.
The extent of the hazard zone is shown in the diagram below:



Structures within the Hazard zone

If individual columns are used within the hazard zone, the design of the structure above them must incorporate a degree of continuity such that the removal of any one column will not lead to the collapse of the remainder of the structure under

permanent loads, together with the appropriate live loads as follows:

For buildings the permanent load should be those specified in appropriate structures design codes.

To provide robustness against the effect of light impacts all piers or columns within the hazard zone shall be designed to withstand without collapse a single unfactored load 2000 kN acting on a height of 1.2 metres above the adjacent ground level and a single unfactored load of 500 kN acting on a height of 3.0 metres. The two loads may act in any direction but need to be considered to act simultaneously. These loads shall be combined with the permanent loads and the appropriate primary and secondary live loads set up in (a) or (b) above.
The connections between columns and their bases shall be such that they can resist a horizontal force of 2000 kN at the ultimate limit state without being dislocated. Pin jointed connections shall be avoided.

Plinths and Platforms
Where individual columns are used a solid plinth should be provided to a minimum height of 900mm above the rail level or 1200mm above the ground level where clearance permits. The plinth should be suitably shaped in plan to deflect derailed vehicles away from the column. A solid platform construction should be used to provide similar protection from derailed vehicles for individual columns within station areas.

Structures in Embankments
Columns and piers located within embankments, or at the bottom of embankments, may require special consideration even if outside the hazard zone because of the possibility of derailed vehicles rolling down the embankment. If it is not possible to arrange the design to avoid the situation then appropriate measures shall be taken to safeguard such columns and piers. Consideration should be given to the following:
1. The use of guard rails;
2. A retaining structure to widen the embankment;
3. The use of massive piers.

Structures Over the Railway
The structure and supports of any buildings over railway lines shall be so designed and protected that they will withstand the effects of a fire on the track for such time as specified by the appropriate Building Control Authority.

APPENDIX D

List of Relevant Railway Standards (To be inserted as appropriate)

APPENDIX E

NETWORK RAIL
ALCOHOL AND DRUGS POLICY STATEMENT

(For more details see Network Rail Standard NR/L1/OHS/051)

1. **INTRODUCTION**

This statement outlines Network Rail's policy in respect of any employee or contractor whose proper performance of their duties is or may be impaired as a result of drinking alcohol or taking drugs. It is supported by the Rule Book, Network Rail Standard NR/L1/OHS/051, related Codes of Practice, Guidelines and readily available educational materials.

Network Rail has taken into account the Transport and Works Act 1992. Provided that employees adhere to the provisions of this Policy they will normally be able to demonstrate compliance with the Act.

All persons concerned are to be made aware of this statement and become familiar with its content.

2. **POLICY**

Network Rail will take all reasonable steps to ensure that employees or contractors are made aware of the contents of this statement, together with the relevant sections of the Transport and Works Act 1992 and the implications therein. Furthermore, as a responsible employer, Network Rail have in place procedures to prevent, in so far as is reasonably practicable, an offence under the Act and a monitoring process to measure the effectiveness of those procedures.

It is a Network Rail requirement that no employee or contractor shall:

- report or endeavour to report for duty having just consumed alcohol or under the influence of drugs
- report for duty in an unfit state due to the use of alcohol or drugs
- be in possession of drugs of abuse in the workplace
- consume alcohol or drugs whilst on duty

Network Rail will not tolerate any departure from these rules and will take the appropriate disciplinary action in the event of any infringement.

Network Rail has a policy of assistance with the rehabilitation of staff who voluntarily seek help for alcohol or drug related problems. Such staff must,

however, seek assistance at the earliest possible opportunity—subsequent discovery or a disclosure prompted by impending screening will not be acceptable.

A programme of screening has been put in place. This includes procedures to:

- Detect the use of drugs by both existing or potential employees
- Detect the use of alcohol and/or drugs by any person(s) involved in a Safety Critical Incident where there are grounds to suspect that the actions of the person(s) led to the incident
- Detect the use of alcohol and/or drugs where abnormalities of behaviour prompt managerial intervention (which may include a request for screening)

Network Rail monitors this policy and periodically reviews its adequacy.

3. **POSITIVE SCREENING RESULT**

For the purpose of the Group Standard a positive screening for alcohol and drugs shows:

- the presence of drugs, or
- more than 29 milligrams of alcohol in 100 millilitres of blood, or
- more than 13 micrograms of alcohol in 100 millilitres of breath, or
- more than 39 milligrams of alcohol in 100 millilitres of urine.

* Prohibited drugs as defined in the Misuse of Drugs Act 1971; abuse of prescribed drugs, proprietary medicines or other substances; use of medication prescribed by a doctor or advised by a pharmacist, which could affect work performance.

APPENDIX F

SPECIFICATION FOR MANUFACTURE AND FIXING OF BRIDGE IDENTIFICATION PLATES

1. Manufacture of plates

   A) Plates to be cast aluminium, oval (360mm x 210mm), with raised rim and characters showing engineer's line reference (ELR), bridge number and mileage (in miles and yards). Details provided by Network Rail.

   B) Minimum thickness of plate to be 5mm, characters and rim to be raised by 5mm.

   C) Plate to be drilled (10mm) and countersunk ready for fixing.

   D) Surface treatment:
      i) shot blast
      ii) zinc chromate primer
      iii) synthetic enamel, stoved on

   E) For colour details see chart.

2. Fixing

   A) Three plates to be fixed to each bridge:
      i) Overbridges: one on each abutment (2.5–3.0m above rail level) facing oncoming rail traffic and one on the road face or end of one parapet.
      ii) Underbridges: one on the end of each parapet facing oncoming rail traffic and one on the road face of one abutment (2.5m above rail level).

   B) Plates are to be fixed using a suitable epoxy resin glue and 2no. S10h100rt nylon frame fixings (stainless steel, crossheaded screws) placed into 2no. 10mmø x 100mm deep holes. The heads of the screws are to be drilled out after fixing.

3. Suppliers

   A) Suitable bridge plates are obtainable from:
   Leander Architectural
   Fletcher Foundry
   Hallstead Close Dove Holes
   Buxton
   SK17 8BP

Tel. 01298 814941
Fax 01298 814970

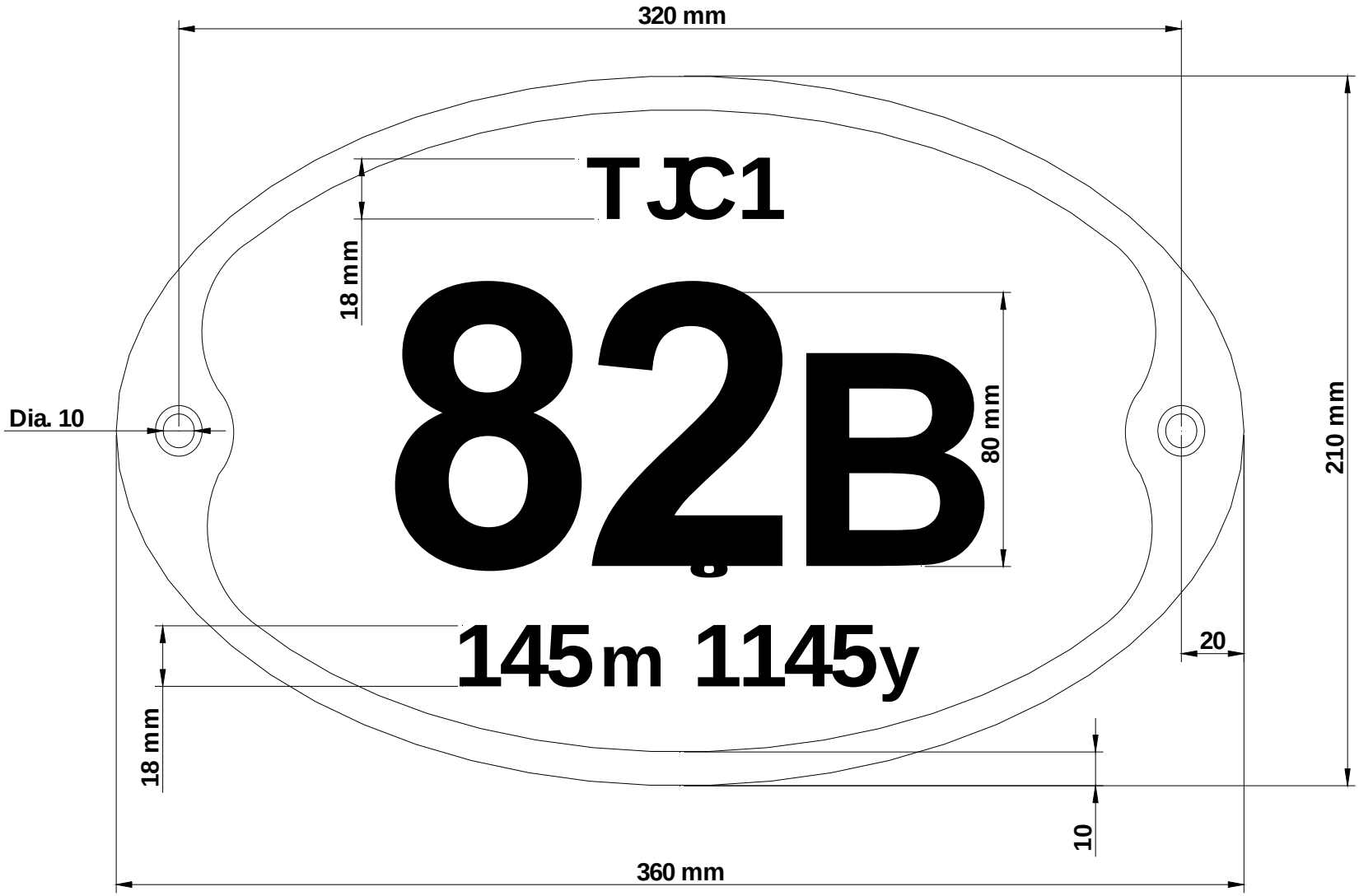
B) S10H100RT nylon frame fixings available from:

Arthur Fischer (UK) Ltd
Hithercroft Road
Wallingford
OX10 9AT

Should alternative suppliers be preferred, samples are to be submitted to Network Rail's engineer for approval.

BRIDGE STATUS	RIM AND CHARACTER COLOUR	BACKGROUND COLOUR
Bridge owned and maintained by an Outside Party	BLACK (00 E 53)	RED (04 E 53)
Bridge owned and maintained partly by Network Rail and partly by an Outside Party	BLACK (00 E 53)	YELLOW (08 E 51)
Bridge owned and maintained by Network Rail (including those subject to annual or commuted maintenance and renewal payments by an Outside Party	BLACK (00 E 53)	WHITE (00 E 55)
Bridge owned and maintained by Network Rail where an Outside Party reimburses the maintenance and renewal costs as and when incurred	WHITE (00 E 55)	BLUE (20 E 51)
Trunk road bridge owned by Department for Transport but maintained by Network Rail on an agency basis with costs reimbursed as and when incurred	WHITE (00 E 55)	GREEN (14 E 53)

STANDARD COLOUR CODES TO DENOTE OWNERSHIP AND MAINTENANCE
NOTE: ALL COLOURS TO BS.4800



TYPICAL BRIDGE NUMBER PLATE

NOT TO SCALE

APPENDIX G

NETWORK RAIL
WORKING HOURS—SAFETY CRITICAL WORK
POLICY STATEMENT

1. **INTRODUCTION**

This statement outlines Network Rail's policy in respect of working hours for staff or contractors carrying out work on Network Rail controlled infrastructure or which could affect the operation of the railway.

Network Rail has taken into account the Railways (Safety Critical Work) Regulations 1994 and Guidance on Regulation. Provided that employees adhere to the provisions of this Policy they will normally be able to demonstrate compliance with the Regulations.

It is intended to provide guidance in conjunction with documented rules governing the preparation of rosters, including:

- the maximum number of hours which may be rostered, daily or weekly
- the maximum amount of overtime permitted in addition to rostered hours
- the maximum number of turns which can be worked before time off (rest days) must be taken
- minimum intervals between turns of duty
- provision for breaks within turns of duty
- variations in start and finish times of turns of duty
- the pattern of shift rotation on a daily, weekly or other basis

All persons concerned are to be made aware of this statement and become familiar with its content.

2. **POLICY**

Network Rail will take all reasonable steps to ensure that employees or contractors are made aware of the contents of this statement, together with the relevant sections of the Railways (Safety Critical Work) Regulations 1994 and Guidance on Regulation and the implications therein. Furthermore, as a responsible employer, Network Rail have in place procedures to monitor, in so far as is reasonably practicable, the working hours of persons in their employment or employed by others to carry out work on or about the railway.

It is a Network Rail requirement that no employee or contractor shall:

- work more than 12 hours plus maximum two hours travelling time per turn of duty

- work more than 72 hours per calendar week (Sunday to Saturday)
- take a rest period of less than 12 hours between booking off from a turn of duty to booking on for the next turn (this may be reduced to 8 hours at the weekly shift changeover in the case of staff working a shift pattern which rotates or alternates on a weekly basis)
- work more than 13 turns of duty in any 14 day period

These limits were set in response to the Investigation into the Clapham Junction Railway Accident (the "Hidden Report") and are outer limits, subject to special arrangements in exceptional circumstances[1], based primarily on managerial judgement as to reasonable maxima.

The limits are not in themselves complete working time patterns. Network Rail standard shows other factors, which make up a working time pattern. They are nevertheless reference points for following the Health and Safety Executive "Guidance on Fatigue Risk Assessment" and complying with

Network Rail monitors this policy and periodically reviews its adequacy in accordance with Network Rail Line standard NR/SP/ERG/003 "Control of Excessive Working Hours for Persons Undertaking Safety Critical Work".

[1] Exceptional circumstances are where, owing to adverse weather, equipment failure, accident or other incident, extended working exceeding the limits set in a working time pattern is necessary:

- in order to avoid or reduce risk to people or significant disruption to services, **and**
- it is not reasonably practicable to make alternative arrangements

APPENDIX H

Sustainability Policy

Network Rail is committed to a policy of sustainable development. Sustainable development is “development that meets the needs of the present, without compromising the ability of future generations to meet their own needs”.

Sustainability for Network Rail

Sustainability is the convergence of three distinct areas:
Social • sustainability
• Economic sustainability
• Environmental sustainability.
Within each area, we have specific goals and targets.

We recognise the importance of delivering an affordable and sustainable rail service, as part of an integrated transport system, fit for the 21st Century. This will contribute to an increase in productivity, and improvements in the quality of life and of the environment within Britain.

Our vision for an even more efficient, more responsive railway, that provides a better experience for our passengers, is even more sympathetic to the needs of our lineside neighbours and is even more conscientious in how we source our materials and minimise the resultant waste, is a vision for a sustainable railway. Our design decisions will put sustainability at the core of the future railway.

We have a moral duty to act. It is part of our role within an industry that is important to the success of Britain, both today and in the future. And acting makes good sense, from an ethical and business perspective.

Delivery

To deliver our goals and strategies we will:

- set continuous improvement targets by which our performance can be measured, demonstrated and publicly reported
- identify opportunities and take action where practicable to improve sustainability and to meet legal obligations
- identify and mitigate adverse impacts and risks
- embed sustainability policy and practice into all of our management systems for operating, maintaining, renewing and enhancing the railway, including standards, processes, procedures and assurance
- provide the right level of advice, awareness and competency to our people and to our contractors’ employees.

Community

Lineside neighbours and visual intrusion
Social commitment
Community relationships
Heritage

Workplace – our people

Employee relations
Employee health
Employee development
Social inclusion

Marketplace – passengers

Train service performance
Safety and personal security
Priorities, perception and experience
Accessibility
Travel information

Environment

Air quality
Noise and vibration
Waste and pollution
Land use and biodiversity
Water and material use
Climate change (including energy use

Social

Environment **Economic**

Marketplace – customers, suppliers and funders

Capacity
Government policy and subsidy
Purchasing and procurement
Asset management (including climate change adaptation)
Regional economic development
Affordability and external cost/benefits to society

"development that meets the needs of the present without compromising the ability of future generations to meet their own need" Brundtland Commission

Social Sustainability

For Network Rail, we have broken Social Sustainability into three areas:
- Workplace – our people
- Community
- Marketplace – our customers.

Workplace

We believe in our people. To be a successful company, we need to inspire and excite our people and to attract and retain the right people. We need to have policies that recognise the contribution our people make and the value they add. Issues of employee relations, employee health and employee development are of great importance, as are issues of social inclusion

Area	Goal	Strategy
Workplace – our people	To have fully engaged employees	to continue to use the annual employee • engagement survey to encourage managers to engage their people • to provide support to line managers through specific training, embedding people policies, processes and corporate communication
	To recruit and retain high potential and high performing individuals	• to blend experienced leadership from Network Rail with great people from outside the Company • to aim to provide remuneration packages that are competitive and match local market conditions • to actively facilitate the career development and training of high potential employees

	To be known as a great developer of both leadership and technical skills	• to use training and development as a strategic investment and a way of shaping culture and behaviour in the organisation • to enable employees to further develop their professional and personal skills • to develop technical training and competency management processes • to develop high quality, accredited training
	To develop a workforce that is reflective of the UK's national and local demographics	• to encourage a diverse applicant base • to implement effective and appropriate diversity policies
	To maintain a safe and healthy workforce	• to continue to reduce risk from working on the network, to provide a safer workplace for our people • to promote safety and well-being amongst all employees • to provide support to employees and their families, during times of serious illness

.

Community

Network Rail owns and operates Britain's rail infrastructure. With over 5 million lineside neighbours, we have a great responsibility to local communities. Our priorities are to delight and exceed the expectations of those neighbours, the wider community and public; to be recognised as a good corporate citizen and to reduce the number of deaths or injuries to those who put themselves in danger by not using the railway properly.

Area	Goal	Strategy
Community	To be recognised as a good corporate citizen	• to align our charitable giving with the Company's activities • to actively encourage our people to get involved in charity work
	To exceed the expectations of lineside neighbours, local communities and the public	• to respond in a professional and timely manner to public enquiries • to continually improve public and neighbour perception and experience of Network Rail • to provide a positive lineside environment for all neighbours • to influence opinion formers to demonstrate that Network Rail is running a safe, efficient, reliable and sustainable railway

	To reduce near misses and fatalities caused by incorrect use of level crossings or by young people trespassing on the railway	• to educate the public about the use of level crossings, demonstrating that they are safe if used correctly • to develop a multi-agency approach to community safety issues and misuse by engaging with the public, private and third sectors • to continue to reduce risk by removing level crossings; upgrading fences and other equipment; and deterring graffiti and other vandalism

Marketplace

We need to satisfy and delight our customers, passengers and freight users. We recognise that we are responsible for some, but not all, elements of the service delivery to rail users. Therefore, we need to have policies that address the elements to which we can contribute.

Area	Goal	Strategy
Marketplace – our customers	To maintain rail's position of the safest mode of public transport	• to seek continuous improvement to our safety record, meeting or exceeding safety performance measures
	To set the benchmark for safe and secure stations	• to seek continuous improvement to passenger perception and experience of safety and security at Network Rail managed stations • to provide facilities to create a safe, secure and welcoming environment
	To be recognised for creating great travel environments	• to contribute to a positive, whole journey experience for all rail customers • to benchmark Network Rail managed stations performance against world class travel hubs • to provide facilities to meet the emerging needs of a diverse and changing population

Economic Sustainability

For Network Rail, economic sustainability is about the marketplace in which we operate. It is about meeting and if possible exceeding the expectations of our customers, our suppliers, our stakeholders and our funders.

To meet their expectations we know that we must provide outstanding service and value to our customers – the Train and Freight Operating Companies, as well as other customers, such as our commercial tenants. We know that we must create professional and mutually beneficial relationships with all of our supply base. And we know that we must earn and maintain the trust and respect of funders and other stakeholders.

Area	Goal	Strategy
Economic sustainability	To improve the economic value to society from the existing railway	• to improve train service reliability • to exploit the railway asset base, by improving the alignment between network capability and service requirements • to deliver infrastructure that is capable of being operated effectively, in a changing climate
	To reduce the level of subsidy required to support the provision of existing services	• to reduce the cost of providing railway infrastructure • to make decisions based upon whole-life, whole system considerations • to reduce the future cost of maintaining the capability of the railway • to increase the income generated from commercial activities
	To encourage investment in the railway to facilitate modal shift	• to make funds available for re-investment in the railway • to improve the value delivered by investment schemes

Environmental Sustainability

For Network Rail, environmental sustainability is about achieving more with less use of resources, reducing our climate change impact, and protecting and, where possible, enhancing our heritage and our natural surroundings.

Area	Goal	Strategy
Environmental sustainability	To achieve sustainable consumption and production	• to reduce waste, in terms of materials, water and land • to increase the use of sustainable materials
	To improve energy efficiency and reduce the reliance on fossil fuels in running the railway	• to encourage modal shift from less efficient forms of transport • to improve the energy efficiency of running trains • to improve the energy efficiency of our activities and reduce our reliance on fossil fuels
	To protect natural resources	• to reduce the risk of impact on air quality and the natural environment • to protect our heritage and natural habitats and seek opportunities to enhance them where reasonably possible

APPENDIX I

NETWORK RAIL REQUIREMENTS IN RELATION TO FAIL-SAFE WORKING OF 360 DEGREE SLEW EXCAVATORS AND CRANES.

a) 360 degree Slew Excavators

In normal operation at maximum boom outreach, allowing for power slide if fitted, no part of the machine or fixed equipment should be capable of breaching the Network Rail boundary or other safety line defined by Network Rail. If difficulty is experienced in achieving this condition and/or particular control measures require to be considered, a full method statement must be submitted.

b) Cranes – Mobile

Requirements for the utilisation of mobile cranes in the vicinity of the operational railway are provided in the CPA Safety Publication Series, Good Practice Guide, CPA 1801 entitled “Requirements for Mobile Cranes Alongside Railways Controlled by Network Rail” which has been endorsed by Network Rail. The guidance can currently be downloaded for free from the CPA website utilising this link.https://www.cpa.uk.net/crane-interest-group-publications-guidance

c) Tower Cranes

Requirements for the utilisation of tower cranes in the vicinity of the operational railway are provided in the CPA Safety Publication Series, Good Practice Guide, CPA 1801 entitled “Requirements for Tower Cranes Alongside Railways Controlled by Network Rail”. This guidance can currently be downloaded for free from the CPA website utilising this link. https://www.cpa.uk.net/tower-crane-interest-group-tcig-publications/

Development questionnaire

At no time should you consider accessing Network Rail property without first contacting the appropriate Asset Protection Project Manager. The railway is an extremely hazardous environment and your Health, Safety and Welfare is important to us.

Please complete as much information as possible, however headings marked with an asterisk (*) are considered essential.

Once completed please forward to the relevant address on the route map.

Date	

Your contact details	
Name / company name *	
Contact	
Address	
Telephone *	
Fax	
Email	

You clients contact details	
Name / company name	
Contact	
Address	
Telephone	
Fax	
Email	

Consultants/contractors contact	
Details	
Name / company name	
Contact	
Address	
Telephone	
Fax	
Email	

*Location of the works	
Building name	
Street name	
Town	
County	
Postcode	
Grid reference	

***Brief outline of scheme** To include whether the works are for residential, business, industrial or change of use.	

Is demolition of existing buildings proposed	

What types of foundations are proposed? (please provide details of any ground remediation (improvement) works)	

Do you have boundary issues or concerns?	

Are either mobile of static cranes proposed on this site?	

Are drawings available for Network Rail review? (Please provide copies of General Arrangement, Elevations, Drainage, Foundation Layout, Site levels.)	

Are there any restrictive covenants in favour of Network Rail in relation to this site?	

Confirm if there are any wayleaves, easements, and licences that relate to the site?	

Clarify if the Party Wall Act 1996 applies to the positioning and nature of your works?	

***Programmed start on site date:**	

Programmed finish on site date:	

Other key dates:	

***Do you require access to Network Rail land?**	

Do your works require road closures?	

Town and Country Planning Authority reference and date approval granted	

Have you applied for buried services?	

Do you have a customer relations reference number?	

Please supply photos of the site if available to help us understand any particular site constraints, issues hazards that are present.	

Are the works adjacent to a level crossing or tunnel?	

Additional comments:	

Mcgroarty K (Kirsty)

From: ONR Land Use Planning <ONR-Land.Use-Planning@onr.gov.uk>
Sent: 15 August 2022 20:27
To: Econsents Admin
Subject: ONR Land Use Planning - Application EC00003444 - Balliemeanoch Pumped Storage Hydro Scheme

Dear Sir/Madam,

Thank you for consulting ONR regarding EC00003444 - Balliemeanoch Pumped Storage Hydro Scheme.

Although the proposed development does not lie within a nuclear site consultation zone, the scale of the reservoir proposed in the planning application is such that it meets our "special case" criteria: this means that we retain an interest in the proposal.

Consequently, we have no comment to make at this time but we request that we be consulted at all future stages of the planning application process.

Kind regards,

Land Use Planning
Office for Nuclear Regulation
ONR-Land.Use-planning@onr.gov.uk

Joyce Melrose
Admin Officer
Energy Consents Unit
The Scottish Government

Sent by email only to: Econsents_Admin@gov.scot

26th August 2022

Dear Joyce,

BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME: REQUEST FOR SCOPING OPINION UNDER THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017

Thank you for consulting RSPB Scotland in respect of the above-named scoping request, located in Argyll and Bute close to Lochan Airigh.

SUMMARY

This proposal has potential to impact on several bird species of conservation concern; notably golden eagle *Aquila chrysaetos*, hen harrier *Circus cyaneus*, red throated diver *Gavia stellata* (all listed in Annex 1 of the EU Birds Directive) in addition to upland breeding wader assemblages and black grouse *Lyrurus tetrix* (a Red Listed UK Biodiversity Action Plan species). Further, the majority of the proposed Development Site (including the *c.* 2 km^2 headpond) is located on Class 2 peatland - representing nationally important carbon-rich soils, deep peat and priority peatland habitat. Such areas are of potentially high conservation value/restoration potential.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) CONSIDERATIONS AND PROPOSED METHODOLOGY

As a minimum requirement, all survey work should apply the latest guidance from NatureScot (SNH, 2017); covering access points/tracks in addition to the main proposed Development Site. Presently, it appears that baseline surveys for ornithological receptors covers 1-year only at the proposed headpond location (2019) and Inveraray area (2021) respectively. Because ornithological activity may vary within and between seasons, RSPB Scotland strongly recommend that bird surveys cover a 2-year period across all elements of the proposed Development Site. This applies particularly to species of conservation concern. We further advise that monitoring for key species should be continued up to and throughout the application process - with data made available up to the nearest breeding season to inform the EIA Report. It is disappointing that scoping was not carried out prior to the start of the survey work so that all stakeholders could have opportunity to comment on survey requirements.

RSPB South Scotland
Regional Office
10 Park Quadrant
Glasgow
G3 6BS

Tel: 0141 331 0993
Facebook: @RSPBScotland
Twitter: @RSPBScotland
rspb.org.uk

PRIORITY SPECIES

Golden eagle, white-tailed eagle, hen harrier, other raptors
RSPB Scotland strongly recommend that the Applicant liaises with the Argyll Raptor Study Group (ARSG) to ensure full capture of site occupancy/breeding data for these species.

Historical data indicate the presence of one golden eagle home range within the red line boundary of the Proposed Development, and one golden eagle home range within *c.* 1 km of the red line boundary of the Proposed Development. It is noted that the Applicant has liaised with NatureScot with a view to obtaining satellite tag data for golden eagle to inform Golden Eagle Topographical (GET) modelling to predict the loss of habitat used by territory-holding pairs. Whilst RSPB Scotland welcomes this action, the area's importance to sub-adults/non-breeders/un-tagged pairs must also be ascertained, particularly as the proposed headpond site lies *c.* 5 km east of the Glen Etive and Glen Fyne Special Protection Area, which places the Development Site within potential connectivity range for qualifying features (SNH, 2016). Assessment of the Development Site's importance to these untagged birds will therefore rely on direct observation.

Historical satellite tag data indicate use of this area by white-tailed eagle *Haliaeetus albicilla*, particularly in the South-East of the Development Site. A historical record of hen harrier breeding was returned close to the proposed headpond. We highly recommend consulting with the ARSG to secure up-to-date breeding records for raptors alongside delivery of robust survey work over a 2-year period.

Red-throated diver
Red-throated divers use lochans/lochs in this area for pre-breeding social gatherings and nesting. Safeguarding their breeding sites is of high importance. Our data indicate that red-throated diver have bred on lochans within the red line boundary of the Proposed Development. Any loss of breeding sites for this species is of serious concern within an Argyll context, and robust survey work must be undertaken to determine impacts in line with NatureScot guidance (SNH, 2017). An assessment of cumulative impacts should also be carried out, capturing impacts from development/activities such as windfarms and commercial forestry. It is possible that data on diver activity may have been collected by local wind farm developments. RSPB Scotland recommend that approaches are made by the Applicant to secure this information if available, to give every assurance of robust assessment. Wider conservation measures to safeguard and support Argyll diver populations (i.e., positive management through monitoring, raft deployment and predator control) should be considered at an early stage as part of any proposed mitigation and habitat management activities.

Breeding waders
Historical data indicate that priority waders such as curlew *Numenius arquata* and lapwing *Vanellus vanellus* are likely present and breeding on upland habitat in the west of the Development Site. If survey work identifies potential for negative impacts on these species, mitigation may offer an opportunity to enhance the area for breeding waders and secure positive effects for biodiversity (i.e., via positive management through monitoring, shingle beach creation/targeted landscaping of headpond banks, peatland/moorland habitat improvements and active predator control).

Black grouse
In the UK, the black grouse is a Red Listed species and the subject of a Biodiversity Action Plan (UKBAP). This bird has undergone significant declines in south-west Scotland, with Argyll remaining a key area for them. Positive management actions to enhance and create habitat for this species would therefore be welcome. Data indicate that 2 leks of Highest Regional Priority and 4 leks of High Regional Priority are located < 2 km from the Development Site boundary. A further 11 Regionally Important lek sites are located < 5 km from the Development Site boundary. The Proposed Development therefore sits within the estimated 5 km adult dispersal zone for 17 regionally important black grouse leks.

Historically, Argyll leks were well attended. A decline in numbers in this area may have resulted from changes in land use, for example windfarm developments and commercial forestry. RSPB Scotland therefore recommend that the Proposed Development's Habitat Management Plan (HMP) should provide *significant* and important opportunities to improve local management for this UKBAP species - ideally through retention

and positive management of open ground habitat and existing low-density native woodland; plus, the planting of low density (< 200 stems/ha) native shrub and woodland species of suitable local provenance in appropriate locations.

PRIORITY HABITATS

Peatland

Outwith the commercial plantation forest to the North, the majority of the Development Site (including the *c.* 2 km^2 headpond) is located on Class 2 peatland - representing nationally important carbon-rich soils, deep peat and priority peatland habitat. A detailed peat mapping exercise is therefore required. The flooding of *c.* 2 km^2 Class 2 peat to form the headpond will halt the process of peatland carbon sequestration in that area by submerging and killing plant growth forming the acrotelm. The breakdown of this layer underwater will expose the peat and initiate carbon breakdown - with eventual release into the atmosphere. This may be further exacerbated by drying/wetting through changing water levels.

Ancient Woodland and Lower Plant Assemblages

Ancient woodland is an extremely rare, irreplaceable habitat in Scotland which suffers continued loss and fragmentation. Therefore, any potential for direct impact via loss of trees is significant and hinders the vital collaborative landscape scale work of the Alliance for Scotland's Rainforest (ASR). Plantlife Scotland data and modelling exercises [**Figure 1**.] show that the Proposed Development could potentially impact two sections of Plantlife Scotland's Core Important Plant Area, which fall within the Development Site (to the North-West and South-East [**Figure 1.**, in green]). However, there is clear potential for expansion of these sections within and abutting the red line boundary [**Figure 1.**, in orange]. We recommend undertaking the planting of low-density native shrub and woodland species as an enhancement activity to connect these fragments, as this would:

1. contribute to restoring and expanding tracts of Scotland's Rainforest to meet ASR's aims and national objectives for biodiversity conservation and the mitigation of climate change; and
2. expedite carbon offsetting for peatland impacts resulting from the Proposed Development.

RSPB Scotland therefore urge the Applicant to be ambitious in any proposals for blanket bog restoration, positive moorland management and the connecting of rainforest fragments (e.g., along the southern shore of Loch Awe). In addition to expediting carbon offsetting for peatland impacts resulting from the Proposed Development, and the recovery/replacement of any lost Ancient Woodland, this approach would provide valuable habitat for raptor prey species and Regionally Important black grouse populations by creating biodiverse transitional zones.

Habitat Management/Mitigation

The EIA should include details of proposals for mitigation and enhancement in relation to priority species and habitats. This should include timing constraints for construction works (i.e. in respect of ground vegetation disturbance and noise/visual disturbance) to avoid sensitive breeding periods; consideration of works-related lighting; and an outline of proposed actions to ensure delivery of positive effects for biodiversity in line with the requirements of draft NPF4, which is expected to be adopted this year.

RSPB Scotland would expect habitat work to include the establishment of connectivity between Ancient Woodland fragments through planting of native shrub and woodland species in appropriate areas (both on and off site), and the restoration of suitable areas to peatland and bog habitat. This would deliver benefit to priority species, contribute to aims under the Argyll and Bute Woodland and Forestry Strategy, and could focus on restoration/expansion of Scotland's Rainforest as above. An outline of any compensatory planting activities should be included as part of the EIA. An outline HMP should be submitted with any application, including detailed ecological justification for any proposals.

CUMULATIVE IMPACT

Land use in Mid-Argyll and on the Kintyre Peninsula is increasingly undergoing impacts from windfarm developments and commercial forestry, so the need to consider cumulative impacts in respect of open ground habitat loss is paramount. Loss of this habitat in respect of the Proposed Development will be

consequential to open ground foragers and breeding assemblages. An assessment of cumulative bird impacts in relation to other operational, consented and proposed developments in the planning system within this Natural Heritage Zone is therefore essential.

Siting infrastructure on open habitats - particularly Class 1 and 2 peatland - should be avoided wherever possible. Siting infrastructure within existing plantation forest (which is generally of low biodiversity value) minimises loss of important open ground habitat to priority upland foragers and breeders.

Presently, it is not clear to RSPB Scotland whether the Development Site interfaces with Habitat Management Plans for nearby operational and proposed renewable energy developments. This should be set out in any EIA Report.

Given the clear upsurge in renewable energy developments and associated Over Head Line upgrades/substation infrastructure across Argyll, RSPB Scotland strongly advise that a holistic landscape scale management plan is established between energy developers and landowners. A coordinated approach would:

1. better evaluate and mitigate the cumulative impact of energy developments;
2. make the most efficient and impactful use of available land/resources to support coordinated (and ideally, networked) Habitat Management Plans - increasing habitat availability and landscape permeability for protected species; and
3. show a willingness between developers in the onshore renewables and wider energy sector to fully commit to meeting requirements for securing positive effects for biodiversity, as set out in NPF4.

I trust you find these comments helpful. Please do not hesitate to contact me should you require further information or clarification.

Yours sincerely,
Redacted

Stephanie Cope
RSPB Conservation Officer for Argyll, Arran and Ardnamurchan.

List of References

SNH (2016). Assessing connectivity with Special Protection Areas (SPAs). Version 3.
SNH (2017). Recommended Bird Survey Methods to inform impact assessment of onshore windfarms.

Balliemeanoch PSH Scheme: Map showing Plantlife Scotland Important Plant Areas and Areas of High/Very High Opportunity for Rainforest expansion in relation to the Proposed Development boundary

Legend:

- Balliemeanoch PSH Scheme Boundary (APPROXIMATE)
- Plantlife IPA Core
- Plantlife Zones of Opportunity (High and Very High Suitability)

Acknowledgements & Notes:

Created by: RSPB

N

Map scale = 1:40,000

Date printed: 26/08/2022

0 0.5 1 2 km

RYA Scotland

Royal Yachting Association Scotland

Caledonia House
1 Redheughs Rigg
South Gyle
Edinburgh
EH12 9DQ

T +44 (0)131 317 7388
E admin@ryascotland.org.uk
W www.ryascotland.org.uk

18th July 2022

Joyce Melrose
Admin Officer
Energy Consents Unit
The Scottish Government
Econsents_Admin@gov.scot

Dear Ms Melrose,

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME

My colleagues and I have read the scoping document on behalf of RYA Scotland. We note that the proposal includes marine works at Inveraray. Although Inveraray is the destination for only a small number of of yachts the numbers seem to be increasing, perhaps due to its inclusion in the annual *Welcome Anchorages* publication. There are several visitor moorings but it is not a particularly good place to anchor. The wooden pier is unsafe and difficult to access. A new or upgraded pier could benefit recreational boaters and the local community. As it is unclear what the impact on recreational boating will be during the construction phase then the impact on recreational boating should be scoped in. However, mitigation measures should ensure that there are no adverse affects. It will be important to consult Inspire Inveraray which is a charitable company that acts on behalf of the Inveraray community and which wishes to buy the old pier. RYA Scotland is a non-statutory consultee of Marine Scotland so will be consulted when the marine licence is applied for.

Some small recreational boats sail on Loch Awe but the area of the loch (38.5 km^2) is great enough to ensure that short-term water level changes associated with the scheme are likely to be trivial.

Yours sincerely,

REDACT

Dr G. Russell FRMetS MCIEEM
Planning and Environment Officer, RYA Scotland

sport scotland
LOTTERY FUNDED

Melrose J (Joyce)

From: Malcolm Morrison <M.Morrison@sff.co.uk>
Sent: 01 August 2022 10:39
To: Melrose J (Joyce)
Subject: RE: Balliemeanoch Pumped Storage Hydro Scheme

Joyce
Having discussed this we don't think it will have any impact on our members, so consider us a Nil Response
Rgds Malcolm

Econsents_Admin@gov.scot

Joyce Melrose)
Admin Officer
Energy Consents
The Scottish Government

Our Ref: 06694
24/08/2022

Dear Ms Melrose,

ECU ref: ECU00003444
ELECTRICITY ACT 1989

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

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME

Thank you for your email of 14 July 2022 seeking comments on the scoping report for the above proposal. We gratefully acknowledge the additional time allowed for our response.

ScotWays records

The enclosed map shows that right of way SA128 as recorded in the National Catalogue of Rights of Way (CROW) crosses or is close to the application site as shown on Figure 1.1 *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.

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 any 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.

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
Planning Comment Guidance Notes

These notes explain what is shown on the maps provided with planning application 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 Nature Scot) 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 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 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 application site a map will be provided showing these.

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 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 planners will have consulted their access authority's core paths plan to check whether any core paths cross or are close to the 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 planning 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 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.

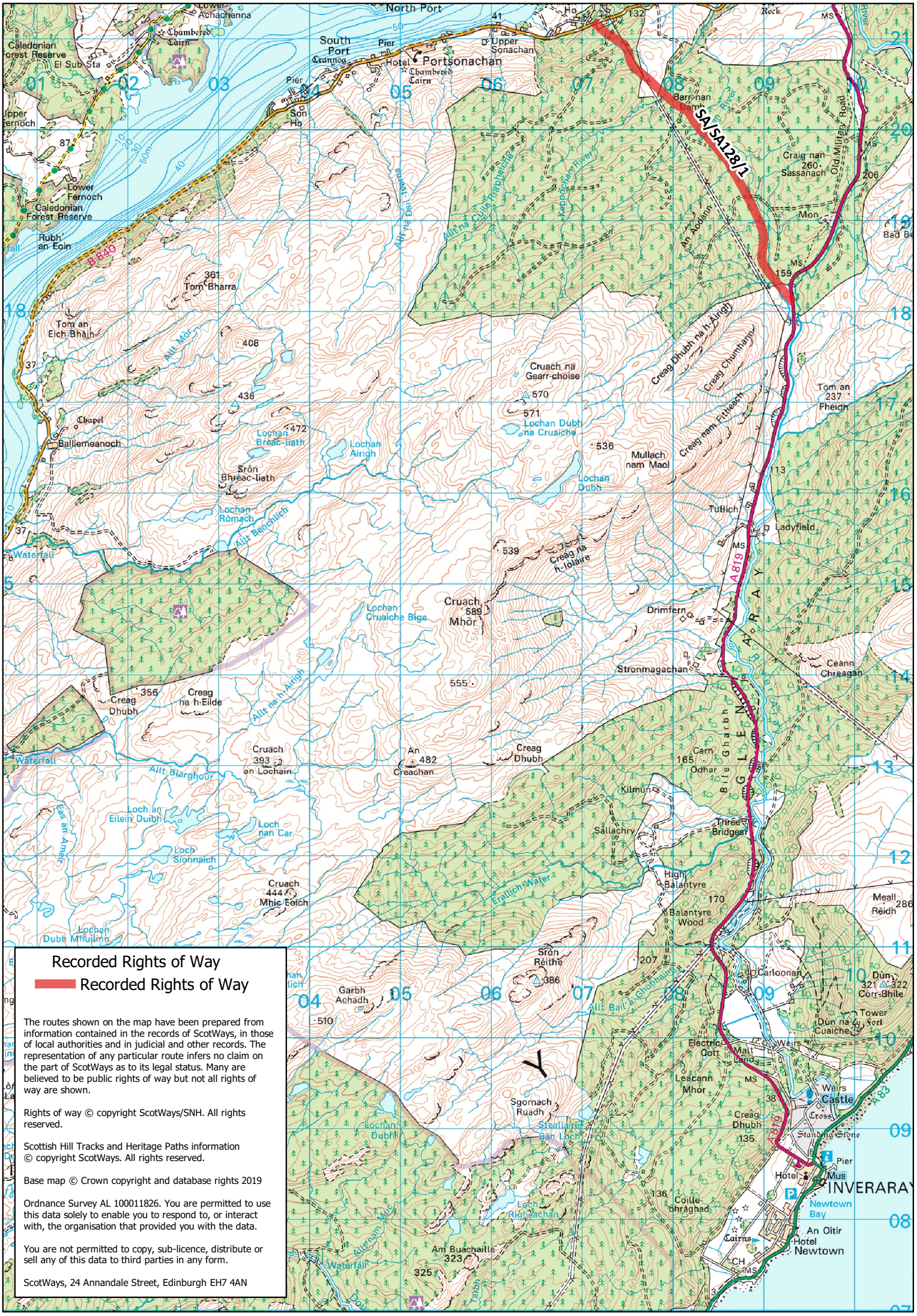
Development and Planning Applications

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 planning 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 permission 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



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.

ScotWays, 24 Annandale Street, Edinburgh EH7 4AN

Tuesday, 02 August 2022

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

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

Development Operations
Freephone Number - 0800 3890379
E-Mail - DevelopmentOperations@scottishwater.co.uk
www.scottishwater.co.uk
Follow Us

Dear Customer,

Balliemeanoch Pumped Storage Hydro, Inveraray
Planning Ref: ECU00003444
Our Ref: DSCAS-0068953-GBG
Proposal: Construct a PSH scheme located n Argyll and Bute close to Lochan Airigh

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. Please read the following carefully as there may be further action required. Scottish Water would advise the following:

Asset Impact Assessment

Scottish Water records indicate that there is live infrastructure in the proximity of your development area that may impact on existing Scottish Water assets.

The applicant must identify any potential conflicts with Scottish Water assets and contact our Asset Impact Team via our Customer Portal for an appraisal of the proposals.

The applicant should be aware that any conflict with assets identified will be subject to restrictions on proximity of construction. Please note the disclaimer at the end of this response.

Written permission must be obtained before any works are started within the area of our apparatus

Drinking Water Protected Areas

A review of our records indicates that the proposed activity falls within a drinking water catchment where a Scottish Water abstraction is located. Scottish Water abstractions are designated as Drinking Water Protected Areas (DWPA) under Article 7 of the Water Framework Directive. The Cladich Intake supplies Cladich Water Treatment Works (WTW) and it is essential that water quality and water quantity in the area are protected. In the event of an incident occurring that could affect Scottish Water we should be notified without delay using the Customer Helpline number **0800 0778 778**.

The notification looks to confirm upgrading and extending of the existing forest track to the south of the catchment. So, the risk should be relatively low, provided the usual control measures are implemented to protect source WQ during the work. Some of this proposal will take place within the River Aray catchment also, which supplied Inveraray WTW as a drought contingency source.

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.

We welcome that reference has been made to the Scottish Water drinking water catchment.

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 and it would be useful to get a timeline of when work is likely to commence on site, as we have to make sure this proposal doesn't coincide with the ongoing SSEN pylon works scheduled to take place in this area.

It would be useful if we were kept informed as this progresses through the planning stages, so we can provide additional comments going forward.

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. This will enable us to be aware of activities in the catchment and to arrange a site meeting with the relevant member of our Sustainable Land Management team if it is deemed a requirement.

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
    - www.sisplan.co.uk

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.

Yours sincerely,

Angela Allison
Development Services Analyst
PlanningConsultations@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."

Haggerstone L (Linda)

From: Robert Merrylees <RMerrylees@ukchamberofshipping.com>
Sent: 20 July 2022 13:26
To: Melrose J (Joyce)
Cc: Econsents Admin
Subject: RE: Balliemeanoch Pumped Storage Hydro Scheme

Dear Joyce & Econsents Admin Team,

Thank you for the consultation to the Chamber of Shipping.

The Chamber offers a nil return in this instance.

Kind regards,
Robert
Robert Merrylees
Policy Manager (Safety & Nautical) & Analyst

UK Chamber of Shipping
30 Park Street, London, SE1 9EQ

DD +44 (0) 20 7417 2843
Redacted
rmerrylees@ukchamberofshipping.com
www.ukchamberofshipping.com

Mcgroarty K (Kirsty)

From: Jamieson E (Elaine)
Sent: 15 August 2022 12:55
To: Econsents Admin
Subject: Balliemeanoch Pumped Storage Hydro Scheme
Attachments: 20220815 Scottish Forestry SCOPING OPINION Balliemeanoch Hydro.docx

Dear Joyce,

Please find attached our scoping opinion. I will be happy to discuss further with the applicant as I understand that the scale of tree felling and woodland removal maybe small and therefore an appendix, rather than a chapter on woodland may be acceptable.

Kind regards
Elaine

Elaine Jamieson
Operations and Development Officer
Scottish Forestry

Perth & Argyll Conservancy | Upper Battleby, Redgorton | Perth | PH1 3EN
Mobile: 07909 893792
elaine.jamieson@forestry.gov.scot

Website: forestry.gov.scot
@scotforestry

Scottish Forestry / Coilltearachd na h-Alba

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation.

In light of the ongoing public health advice to reduce unnecessary social contact during the outbreak of Covid-19, we have activated our Business Continuity Plan. More information can be found on our website.

BRAVE values are the roots that underpin Scottish Forestry, to create a workplace where our staff, and the people we work with, feel valued, supported and respected.

Be professional, **R**espect others, **A**ct with honesty and integrity, **V**alue teamwork and collaboration and **E**ncourage innovation and creativity.

Scottish Forestry

Scoping Opinion Balliemeanoch Hydro- August 2022

Forestry and Woodlands

Scotland's forests make a substantial contribution to the economy at both national and local levels, they provide considerable environmental benefits and help to improve people's quality of life. The Scottish Government aims to maintain and enhance Scotland's forest and woodland resources for the benefit of current and future generations. To achieve this, we need to prevent inappropriate woodland losses (Scotland's Forestry Strategy, 2019).

The third National Planning Framework also recognises that Scotland's woodlands and forestry are an economic resource, as well as an environmental asset. The Climate Change Plan places emphasis on the fact that Scotland's woodlands deliver a wide range of benefits, including inward investment and jobs, climate change adaptation and mitigation, and the enhancement of the health and well-being of Scotland's communities. The Scottish forestry sector is worth almost £1 billion per year and employs over 25,000 people.

There is therefore a strong presumption in favour of protecting Scotland's woodland resources and the Scottish Government provides policy direction in the policy on control of woodland removal. Woodland removal should be kept to a minimum and where woodland is felled it should be replanted. The policy supports woodland removal only where it would achieve significant and clearly defined additional public benefits. In some cases, including those associated with development, a proposal for compensatory planting may form part of this balance.

The criteria for determining the acceptability of woodland removal is explained in the policy and the applicant should take them into account when preparing the proposal. Beyond this, the applicant should refer to guidance documents issued by Scottish Forestry (and previously by Forestry Commission- FC) in relation to good forestry practice and sustainable forest management.

Woodland Management and tree felling
Where woodland removal is proposed for development, the relevant Environmental Impact Assessment (EIA) regulations will apply and the EIA Report should justify and provide evidence for the need for woodland removal and the associated mitigation measures.

The first consideration for the applicant should be whether the underlying purpose of the proposal can reasonably be met without resorting to woodland removal. Design approaches that reduce the scale of felling required to facilitate the development must be considered and integration of the development with the existing woodland structure is a key part of the consenting process.

Integration of the project into future forest design plans is a key part of the development process. **The removal of large areas of woodland will not be supported.** When a proposed development or infrastructure requires to go through forestry, consideration should be given to forest design guidelines. The EIA Report should include a stand-alone chapter or appendix on 'Woodland management and tree felling' (a forest plan) prepared by a suitably qualified professional and supported by existing records, site surveys and aerial photographs. In order to present the relevant information about the forest and to secure compliance with the UK Forestry Standard, the applicant should consider the appropriate scope/scale for such plan.

In certain cases a forest plan of the proposed development area only is not appropriate. The applicant should consider the whole ownership, or multiple ownerships, or expands the scope of the forest plan so that to present the relevant information about that forest. Details of the proposed mitigation measures must be included in the EIA Report, not left to post-consent habitat management plans (or others) to decide and implement.

The chapter should describe and recognise the social, economic and environmental values of the forest and the woodland habitat and take into account the fact that, once mature, the forest would have been managed into a subsequent rotation, often through a restructuring (re-designing) proposal, according to the UK Forestry Standard, that would have increased the diversity of tree species and the landscape design of the forest.

The chapter should describe the baseline conditions of the forest, including its ownership. This will include information on species composition, age class structure, yield class and other relevant crop information. The chapter should describe the changes to the forest structure, the woodland composition and describe the work programme:

- the proposed areas of woodland for felling to accommodate the proposed infrastructures, including access roads, tracks, underground pipes and cables and any ancillary structures. Details of the area to be cleared around those structures should also be provided, along with evidence to support the proposed scale and phasing of felling;

- trees felled must be replanted on-site or compensated for (off-site planting) and these areas must be clearly identified in the plan. On-site replanting must always be considered first. The replanting operations must be appropriately described, including changes to the species composition, age class structure, timber production and traffic movements. Tree/shrub species must be suited to the site and the objectives of management;

- areas of open ground in the forest that are designed for biodiversity or landscape enhancement or for recreation opportunities should not be considered for on-site replanting (to compensate for woodland removal in other parts of the forest).

The applicant should consider the potential cumulative impact of existing and the proposed development on the forest resource in respect to the local and regional context. In particular consideration must be given to the implication of felling operations on such things as habitat connectivity, biodiversity, water management, landscape impact, impact on timber transport network and forestry policies included in the local and regional Forestry and Woodland Strategies and local development plans.

A long term forest plan should be provided as part of the EIA Report (as a technical appendix for context) to give a strategic vision to deliver environmental and social benefits through sustainable forest management and describes the major forest operations over a 20 years period.

UK Forestry Standard

The UK Forestry Standard is the Government's reference standard for sustainable forest management in the UK and provides a basis for regulation and monitoring. The Scottish Government expects all forestry plans and operations in Scotland to comply with the standards. Both felling operations and on and off-site compensatory planting must be carried out in accordance to good forestry practice- the EIA Report must clearly state that the project will be developed and implemented in accordance with the standard. A key component of this is to ensure that even-age woodlands are progressively restructured in a sustainable manner: felling coupes should be phased to meet adjacency requirements and their size should be of a scale which is appropriate in the context of the surrounding woodland environment.

Scottish Forestry

On the 1st of April 2019 Forestry Commission Scotland transferred into a new agency of Scottish Government called Scottish Forestry, responsible for forestry policy, support and regulation.

Scottish Forestry is the main forestry consultee and should be consulted throughout the development of the proposal to ensure that proposed changes to the woodland are appropriate and address the requirements of policy on control of woodland removal and the principles of sustainable forest management.

It is important that pre-application discussions takes place with the local Scottish Forestry Conservancy office, the planning authority and other relevant key agencies, at the earliest possible stage of the project, to ensure all parties have a shared understanding of the nature of the proposed development, information requirements and the likely timescale for determination. This collaborative approach will ensure that all forestry issues are identified and mitigated at the earliest opportunity. The applicant should allow sufficient time in their project plan to accommodate such advice.

Haggerstone L (Linda)

From: Bridcut E (Emily) (MARLAB)
Sent: 12 October 2022 16:08
To: Melrose J (Joyce); Econsents Admin; Young R (Rebecca); Khataza S (Shafharia)
Cc: Gardiner R (Ross) (MARLAB)
Subject: RE: Balliemeanoch Pumped Storage Hydro Scheme
Attachments: Balliemeanoch Hydro Scoping MSS comments Oct 2022.pdf

Hi Shafharia,

I have attached a response from MSS on the scoping report for the proposed Balliemeanoch pumped storage hydro-electric scheme.

Could ECU please provide MSS with an outline of what aspects of the application (considered under the Electricity Act) that SEPA routinely deal with through the CAR regulations?

Best wishes,
Emily

Dr Emily E Bridcut (she/her)

Senior Onshore Renewables Energy Fish Advisor
Renewable Energy Environmental Advice Group
marinescotlandscience
Scottish Government, Freshwater Fisheries Laboratory, Faskally, Pitlochry PH16 5LB

E mail: emily.bridcut@gov.scot
w: http://www.gov.scot/marinescotland

Please note that I am working in a hybrid style and I do not work on Friday

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From: Melrose J (Joyce) <Joyce.Melrose@gov.scot>
Sent: 14 July 2022 09:49
To: Melrose J (Joyce) <Joyce.Melrose@gov.scot>
Subject: Balliemeanoch Pumped Storage Hydro Scheme

Dear Consultee

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

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME

On 28 June 2022, AECOM (the Agent) on behalf of Intelligent Land Investments (ILI) Group PLC (the Applicant) submitted a request for a scoping opinion from the Scottish Ministers for the proposed section 36 application for the Balliemeanoch Pumped Storage Hydro Scheme. The proposed development is for a pumped storage hydro scheme with a generating capacity of up to 1,500 megawatts (MW) and a storage capacity of approximately 45,000 megawatt hours (MWh),

located in the planning authority area of Argyll and Bute, in line with regulation 12 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Under regulation 12, Scottish Ministers are required to provide a scoping opinion outlining the information they consider should be included in the EIA report. Ministers are also required to consult the relevant consultation bodies and any other interested party which is likely to have an interest in the proposed development by reason of its specific environmental responsibilities or local and regional competencies.

The scoping report and supporting information can be viewed at the Scottish Government's Energy Consents Unit website www.energyconsents.scot by:

- clicking on ***Search*** tab; then,
- clicking on ***Simple Search*** tab; then,
- typing Balliemeanoch into *Search by Project Name* box then clicking on *Go*;
- then clicking on EC00003444 and then click on ***Documents*** tab.

To allow Scottish Ministers to provide a comprehensive scoping opinion, we ask that you review the scoping report and advise on the scope of the environmental impact assessment for this proposal. Please advise if there are any further matters you would like Ministers to highlight for consideration and inclusion in the assessment, particularly site specific information.

It is also the intention of Marine Scotland – Licensing Operations Team ("MS-LOT"), acting on behalf of the Scottish Ministers, to direct under Regulation 8(4) of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 that these Regulations do not apply on the basis that assessment of any effects on the environment is to be carried out by Energy Consents Unit, acting on behalf of the Scottish Ministers.

In order to be satisfied that such assessment will be sufficient to meet the requirements of Directive 2011/92/EU of the European Parliament on the assessment on the effects of certain public and private projects on the environment in relation to marine concerns associated with the works, MS-LOT require additional bodies to be consulted on this scoping request and for their concerns to be appropriately addressed via Energy Consents Unit's regulatory approval process. **For the avoidance of doubt, relevant marine bodies are therefore also being consulted as part of this scoping request and any consultation responses should include any relevant marine receptors and concerns they may have as the scoping exercise covers both marine and terrestrial aspects.**

I would be grateful for your comments by 15 August 2022**.** Please note that reminders will not be issued, therefore if we have not received any comments from you, nor a request for an extension to this date, we will assume that you have no comments to make.

Please send your response (in PDF format if possible) to Econsents_Admin@gov.scot. (please note the underscore _ between Econsents and Admin).

Regards

Joyce Melrose

Joyce Melrose
Admin Officer
Energy Consents Unit
The Scottish Government
To view our current casework please visit https://www.energyconsents.scot

Please Note - Public Holiday 18 July 2022 and Annual Leave 19 July 2022

T: +44 (0)131 2442900
DD: +44 (0) 131 2440053 e-mail: emily.bridcut@gov.scot

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

Our ref: FL/37-H

12 October 2022

Dear Rebecca,

BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME, INVERARAY, ARGYLL AND BUTE

Thank you for seeking comment from Marine Scotland Science (MSS) in relation to freshwater and diadromous fish and fisheries on the scoping report for the proposed Balliemeanoch pumped storage hydro scheme.

MSS have read the scoping report and the responses from SEPA, the Argyll District Salmon Fishery Board (ADSFB), Fisheries Management Scotland and NatureScot.

The proposed development is situated north west of Inveraray and consists of a headpond/upper reservoir located near Lochan Airigh and Loch Awe as the tailpond/lower reservoir. Associated infrastructure includes inlet and outlet structures, a cable tunnel, access tracks/tunnels, buildings and construction compounds. A marine facility is proposed on Loch Fyne; however, this response from MSS does not include advice on this part of the proposal.

The proposed development is within the River Awe catchment which supports important Atlantic salmon, brown trout (including Ferox trout and sea trout), Arctic charr, European eel, lamprey, pike and perch populations. There is an important recreational fishery for Atlantic salmon, brown trout and pike on Loch Awe, the River Orchy (flows into Loch Awe) and the River Awe (flows out of Loch Awe). Atlantic salmon are listed in the Habitats Directive Annex V. All these fish species are listed as priority species for conservation in the Scottish Biodiversity List.

Potential impacts on fish populations associated with construction and operation of the proposed development include:

- deterioration of water quality due to the release of sediment associated with the construction of the embankment, access tracks/tunnels and buildings and stock piled material, the release of hydrocarbons as a result of a fuel spillage and the release of concrete from mixing plants;
- the disturbance and/or removal (through excavation/erosion/deposition) of fish habitat e.g. Allt Beochlich, and Arctic charr spawning areas in Loch Awe;
- entrainment into intakes by fast flowing water;
- impingement on poorly designed or malfunctioning screens at intakes/outlets or screens;
- impediment to fish migration particularly salmon smolts migrating from the River Orchy passing the inlet/outlet points in Loch Awe and/or poorly designed watercourse crossings;
- change in water quantity and flow regimes through abstraction/discharge and the creation of impenetrable surfaces e.g. access tracks/tunnels and buildings;
- altering fish behaviour, disturbance, injury or mortality due to noise and vibration associated with construction works e.g. pumps, turbines, drilling;
- change in water temperature;
- spread of invasive non-native species (INNS). Further guidance from SEPA, the lead organisation for controlling the spread of INNS in Scottish freshwaters, is available at https://www.sepa.org.uk/media/163480/biosecurity-and-management-of-invasive-non-native-species-construction-sites.pdf

MSS advise that the developer should consider all of the above including those potential impacts (e.g. entrainment, impingement and impediment to fish migration) which are regulated by SEPA under the Controlled Activity Regulations (CAR).

MSS note the fish surveys carried out to date and we agree with ADSFB that further surveys should be carried out to provide sufficient information to inform an assessment of the potential impacts of the proposed development on all fish species and associated fisheries in all waterbodies likely to be at risk. We further advise that the developer should consider the likely resilience of the fish populations, particularly salmon and trout, to any impacts. Similar to ADSFB, we advise that this assessment should also consider the potential cumulative impact on the fish populations, particularly in relation to the change in water quantity and quality in Loch Awe, as a result of the present proposal and other adjacent developments (operational and consented) including Cruachan, Inverawe, Nant and Beochlich hydro schemes and fish farms. Full details regarding fish surveys including methodology (e.g. electrofishing, eDNA, smolt/adult trapping, acoustic tracking), selection of monitoring sites (as outlined in the response from ADSFB) and results should be presented in the EIA report. MSS agree with ADSFB that proposed sampling/monitoring should consider the seasonal use by fish species within all waterbodies that are likely to be at risk from the development.

MSS agree with SEPA and NatureScot regarding the proposed access tracks within the development site. The proposed site design (including the reduction in the number of access tracks) and mitigation

measures (including the use of floating roads in areas of deep peat, the adherence to a hydrological buffer zone of 50 m and the practice of key holing in preference to large scale felling) should be a means of avoiding and/or minimising potential impacts on the water environment. In addition to the advice provided by SEPA relating to the design of the watercourse crossings MSS advise that the developer should consider the uninhibited passage of migratory fish in the design of all watercourse crossings.

MSS note the proposed Water Quality Management Plan within the Construction Environment Management Plan. We advise that full details regarding proposed survey/monitoring of water quality (including macroinvertebrate sampling as advised by the ADSFB) and fish populations and appropriate mitigation measures should be provided in the EIA report.

All works should be carried out in accordance with SEPA regulations under the CAR licence conditions, licensing requirements for fishing methods (https://www.gov.scot/publications/consent-to-catch-salmon-or-other-freshwater-fish-forms-and-guidance/), biosecurity (https://www.gov.scot/publications/introduction-of-freshwater-fish-and-ova/ and https://www.sepa.org.uk/media/163480/biosecurity-and-management-of-invasive-non-native-species-construction-sites.pdf) follow best practice construction techniques.

Further information can be found at the following websites:

https://www.nature.scot/sites/default/files/2020-11/NatureScot%20SEPA%20SR%20Guide%20to%20Hydropower%20Construction%20Good%20Practice%20-%202020.pdf
https://www.sepa.org.uk/regulations/water/guidance/
https://www.sepa.org.uk/regulations/water/hydropower/
https://www.sepa.org.uk/media/152049/wat-sg-74.pdf
https://www.sepa.org.uk/media/150984/wat_sg_28.pdf
https://www.sepa.org.uk/media/152075/wat-sg-89.pdf
https://www.gov.scot/publications/onshore-renewables-interactions/
https://www.gov.scot/publications/hydro-schemes-planning-advice/

Kind regards,

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28 July 2022

BALLIEMEANOCH PUMPED STORAGE HYDRO PROJECT

Marine Scotland Science (MSS) have reviewed the "Balliemeanoch Pumped Storage HydroScoping Report" (10 June 2022) and provide the following specific advice.

Marine Ornithology

MSS understand that the developer has had communications with NS during the development of the Scoping Report, however, as MSS was not involved at that stage we are unaware of what has been agreed during those communications. When preparing this advice, MSS had not had sight of the NS consultation response for this scoping report.

MSS request that subsequent reports have dedicated separate sections for terrestrial ornithology and marine ornithology. While acknowledging that there will be some overlap, these components are often reviewed by separate teams. Given potential impacts on SPA sites, a HRA report may also be required to inform an Appropriate Assessment.

MSS have only considered the potential impact of the development on marine ornithology though note that the majority of this project is above the Mean High Water Spring Tide Mark. MSS agree that due to the longevity of the project (80 years) it may be reasonable for only the construction and operation phases need to be scoped in and decommissioning can be scoped out.

The desk study undertaken (Section 9.2 Baseline Conditions, p 60) identified "any international nature designations within 10 km of the Development site", resulting in the Glen Etive and Glen Fyne Special Protection Area (SPA) being scoped in. However, given the foraging ranges of some species (Woodward et al. 2019) this distance would be exceeded for several seabird species which may use the marine component of this development. MSS therefore advise that careful justification is given for selection of screening distances and that for some species a greater distance may be appropriate, potentially leading to inclusion of more SPAs than have been identified initially. NS will be able to advise on which sites need to be scoped in.

MSS agree with the list of potential effects listed in Section 9.4 Likely Significant Effects (p61), but advise that disturbance from Vessels (e.g. barges, workboats and piling rigs), Lighting Effects and

indirect impacts on foraging seabirds via impacts on Prey Populations (from dredging) are also considered.

MSS welcome the mitigation commitments, however, MSS note that clarification should be sought on whether ‘breeding season’ rather than ‘non-breeding season’ was intended in: "Construction of the jetty on Loch Fyne to take place outside of the non-breeding season" (Section 9.5, p61). The breeding season is typically the most sensitive period for relevant species.

Marine Mammals

The marine aspect of this development is a ‘marine facility’ or construction of a pier (predominately temporary). Little detail on this development is available in the marine ecology chapter but more information is in Chapter 19.

MSS are content with the species listed to be addressed in the Environmental Impact Assessment (EIA), (harbour porpoise, bottlenose dolphin, minke whale, grey seal and harbour seal) however, detail on abundance of species in the area is lacking. If noisy construction methods are to be used there may be the need for a quantitative assessment of animals potentially affected.

There are no details available on construction methods but dredging and impact piling are mentioned. A noise assessment may be required for preconstruction survey work or noisy construction operations. There is also no mention of how long construction is likely to take or which months or seasons it may happen, which will have a bearing on the effects that should be scoped in or out of the EIA. MSS agree on the likely significant effects scoped in such as disturbance, but depending on construction methods used there may be a risk of injury to marine mammals (Auditory Permanent Threshold Shift). The impact of increased vessel traffic in the area should also be scoped in to the EIA as well as the location of a dredge disposal site if required. Proximity of dredge disposal to protected sites such as Special Areas of Conservation and Marine Protected Areas should specifically be considered.

Further clarification on the anticipated temporary nature of the marine facility is needed, in particular what aspects are temporary and what may be decommissioned as decommissioning works may also affect marine mammals.

Marine fish ecology

MSS note that there are no known marine fish spawning or nursery grounds in the study area. However, the study area has been identified as suitable habitat for *Nephrops*. The lower region of Loch Fyne represents a spawning ground for sprat and *Nephrops.*

Methodology

The developer is proposing subtidal benthic surveys comprising drop down camera surveys and grab sampling for macrofauna, particle size and sediment chemistry analysis. This information will help to improve baseline data.

Likely significant effects

MSS are content with the identified likely significant effects to marine fish and shellfish for the construction and operational phase of the development.

Mitigation measures

MSS are content with the proposed mitigation measures at this stage.

Commercial fisheries

MSS note that the development area is within an area of *Nephrops* trawling and creeling and that the marine facility will likely interact with the inshore and intertidal fisheries.

Assessment approach and data

MSS are largely content with the assessment approach and data sources. With regards to the assessment approach, MSS highlight our recently published good practice guidance document for assessing fisheries displacement. This guidance largely focuses on offshore wind but offers applicable guidance for other development and activity types. MSS recommends consideration of this guidance when assessing impacts to commercial fisheries in the EIA.
MSS also highlight the potential use of AIS data as a data source as the proposed VMS data only applies to larger vessels over 12 m in length whereas smaller vessels may be more prevalent in the study area and may be missed by looking solely at VMS data. The use of AIS data does present some challenges as it can be turned off and experiences 'black spots' in signal although it is still valuable when assessing small, inshore fishing vessel activity.

Consultation

With regards to consultation, MSS recommend adding the Scottish Fishermen's Federation to the consultee list. MSS also highlight that the National Federation of Fishermen's Organisation is largely a UK (e.g. England and Wales) focused fishing organisation and may not be a relevant consultee for a Scottish development.

Baseline information

With regards to baseline information, MSS recommend the use of 5 years of fisheries data to account for any fisheries trends. MSS also recommend that fisheries data are presented in a visual format including charts and graphs. For the EIA, MSS advise that provisional Scottish Sea Fisheries Statistics are now available for 2021 (Provisional Scottish Sea Fisheries Statistics 2021 - gov.scot (www.gov.scot)) and that the most up-to-date information is used.

Likely significant effects

MSS are content with the identified likely significant effects to commercial fisheries for the construction and operational phase of the development.

Mitigation measures

MSS note that the final design of the marine facility has yet to be confirmed and therefore no mitigation measures have been presented at this stage. MSS welcome the developer's proposed engagement with fisheries stakeholders in the local area that have the potential to be affected by the development.

Decommissioning

The scoping report states that the marine facility is a predominantly temporary structure that will eventually be decommissioned but the expected duration of time that this structure will be present in the marine environment is not detailed.

Diadromous fish

MSS confirm that the diadromous fish species needing considered and the likely impact mechanisms during the construction and operational phases of the marine component of this development have been correctly identified (8.2.4 /Table 8.1 and 8.4) and that in 8.5 Likely Mitigation Measures the correct issues have been considered.

The Argyll District Salmon Fishery Board should be able to advise on any salmon and sea trout netting rights which may be affected.

Benthic Ecology

MSS understand that the impacts on seabed habitats and species are primarily in relation to the proposed marine facility and jetty.

MSS agree with the potential impacts on benthic features described in section 8.4. However, MSS advise that two other impact pathways should be included. 1) During the construction phase, new hard structures such as jetty piles will create an artificial habitat and potentially modify benthic communities and ecosystem function. 2) During the operational phase, "disturbance to habitats and species due to scour from hydrodynamic changes" should extend to include potential changes to the benthos caused by modified current flow. For example, a flame shell bed exists near Otter Spit and the presence of flame shell beds can, in part, be predicted by flow rate (Millar et al., 2019). Therefore a change in flow rate away from the optimal level could result in unfavourable conditions for the species. Likewise, horse mussel bed distribution and condition are highly influenced by flow rate and there are horse mussel bed records approximately 1.5 km from the proposed pier. Chapter 19 states that "The Marine Facility has the potential to modify current patterns" but it is not clear if this is included in the likely significant effects listed in Chapter 8 (Marine Ecology).

MSS note that horse mussel bed records are not clearly visible on figure 8.3, perhaps due to the layering of burrowed mud records.

When it comes to sedimentation, some bivalves are able to migrate upwards out of the sediment to avoid smothering effects, however, horse mussels are not able to emerge from burial (Hutchison et al. 2016).

Although not a protected feature (PF) of the Loch Fyne and Loch Goil MPA, maerl beds have been recorded in Loch Fyne and should be considered in the EIAR as a priority marine feature (PMF). As a photosynthetic organism, maerl require sufficient light levels to grow, therefore, "Changes in water quality from suspended sediments" described under likely significant effects should include consideration of potential changes to light levels at the seabed.

Section 8.2.7 lists a number of marine invasive non-native species (INNS) and MSS note that a biosecurity management plan (BMP) is proposed for the terrestrial part of the development. Given the increase in hard structures and vessel movements in relation to the marine facility, MSS advise that the BMP should include marine INNS also.

MSS note that benthic surveys are planned to inform the EIAR. A review of existing PF and PMF records and sample details will help inform the survey plan (e.g., Allen, 2017; Moore et al., 2013). Revisiting historical sites where features have been found previously would help capture baseline temporal variation as a secondary objective to filling data gaps in areas of the development to map

sensitive species and habitats. It should also be noted that flame shell beds are difficult to identify from drop down video footage due to the nature of the nest material covering the live bivalves. Other techniques such as diver surveys may therefore be required.

Physical environment / coastal processes

We agree that some components of the marine physical environment and coastal processes need to be scoped in as the proposed project could have impacts on sedimentation and hydrodynamics around the study area during both the construction and operation phase, depending on the construction method, if dredging is required, etc. (table 19.2).

The details of the pier structure (to be constructed in Year 2 Q1, 2, 3) are not yet known and depend on the seabed and tidal range at the site. The report mentions a bathymetric survey to fully understand potential constraints at the site as the seafloor quickly drops off to >100m and the potential for dredging. If dredging is undertaken, water sample data will be required to determine background levels of Total Suspended Solids and appropriate disposal options identified. Identification of appropriate disposal options would also be necessary should maintenance dredging be required.

We support the need for in-situ measurements (with an ADCP) to properly assess the currents at the study site. Associated wind measurements could add the befit to investigate wind-generated currents.

We support this statement “Loading/unloading operations may therefore need to be restricted to the when wave activity is much lower as a form of embedded mitigation, thus avoiding the requirement to provide protection for vessels at berth” as an embedded mitigation measure.

We fully agree with this assessment “It will therefore be important to have a better understanding of the hydrodynamic regime within the local study area, informed by marine surveys as a minimum and possibly supported by numerical modelling. A review geotechnical information will also be required to confirm the proportion of fine material (i.e. clays and silts) that could lead to increased turbidity levels (and thus reduced water quality). If this material has the potential to be re-suspended, a study of sediment dispersion would be required.”

A numerical hydrodynamic model might be required, and we agree with statements in chapter 19.3.4. Hydrodynamic modelling can be used to compare existing conditions with those once the new development is in place. Data from field studies can then be used for model calibration and validation. Details of the model, boundary conditions and forcing, including sensitivity analysis, need to get provided.

In summary we fully agree with these concluding remarks in the report:
- New surveys are required to provide a more detailed understanding of baseline conditions and to confirm the scope of work in terms of the impacts to be assessed; - A detailed Project Description is required to confirm which of the potential impacts identified can be ‘scoped out’ of further assessment; - Numerical modelling may be required to support the impact assessment although this will be subject to confirmation of project details and findings from marine surveys. - A detailed assessment based of the potential impacts identified will be carried out forming the basis of the EIA.

Aquaculture

There are no aquaculture sites within 1000m of the proposed development boundaries near Loch Fyne or Loch Awe. However, there are several aquaculture sites in the wider area of Loch Fyne and in Loch Awe (see attached map). Details of the nearest aquaculture sites are provided.

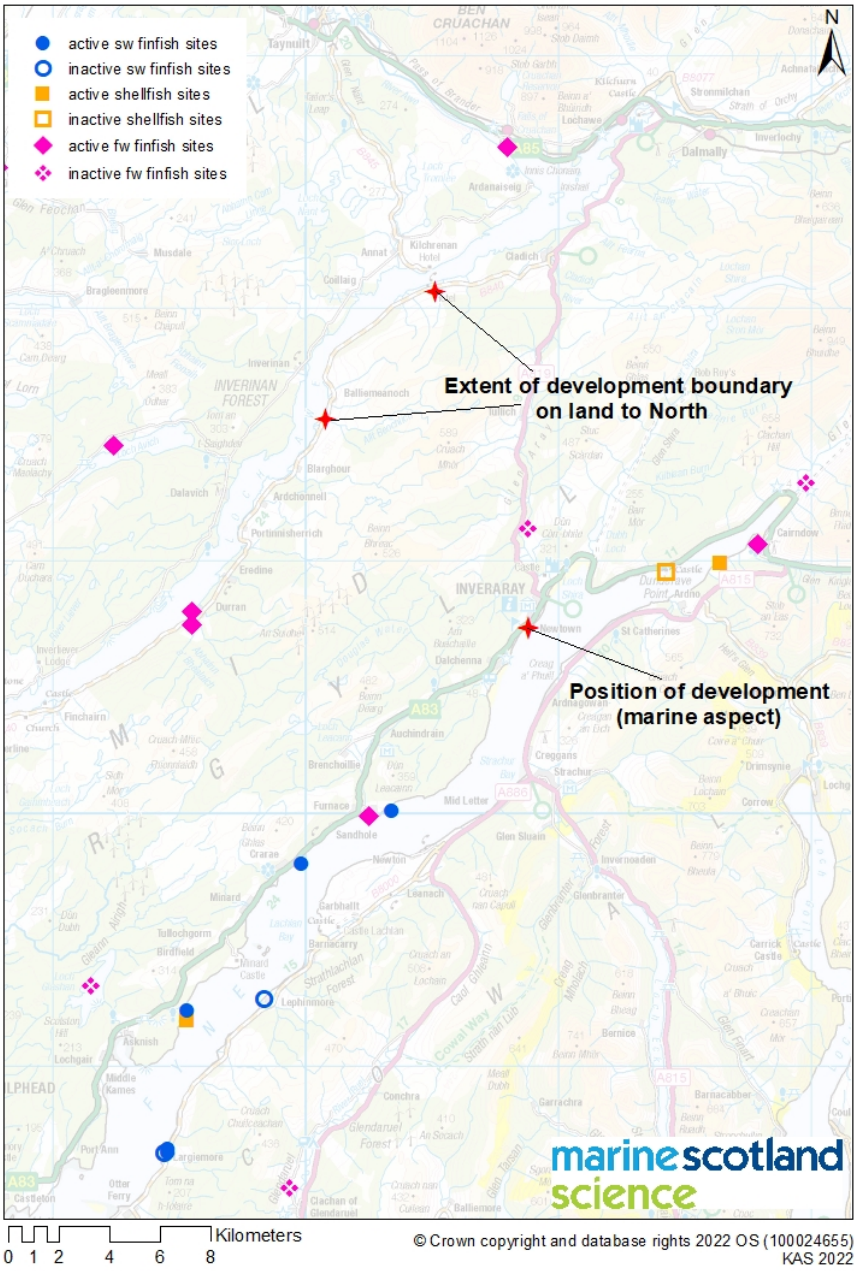
Loch Fyne

The shellfish site located 5.6 km north east of the development has been inactive since 2008, it was previously stocked with trestles of Pacific oysters and operated by Dr S.N. Joffe; to our knowledge there is no equipment currently in the water. The nearest active site is the Loch Fyne Oysters shellfish site located ~8km north east of the development, stocked with Pacific and Native oysters farmed in trestles on the shore. The remaining active site to the head of Loch Fyne, ~9km from the development is a land based Atlantic salmon freshwater hatchery and tank site operated by Cooke Aquaculture (Freshwater) Ltd.. To the south west, ~9km from the development, there is an active seawater pen Atlantic Salmon site operated by The Scottish Salmon Company.

Loch Awe

There are two freshwater cage sites stocked with rainbow trout operated by Dawnfresh Farming Ltd. in Loch Awe. These are located ~6km north east of the eastern point of the development boundary on the banks of Loch Awe and ~9km south west of the western point of the development boundary on the banks of Loch Awe.

Aquaculture sites in the vicinity of Balliemeanoch Pumped Storage Hydro project, Inveraray by Intelligent Land Investiments Group Plc.



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Hopefully these comments are helpful to you. If you wish to discuss any matters further, then please contact the REEA Advice inbox at MSS_Advice@gov.scot.

Yours sincerely,

Renewable Energy Environmental Advice group
Marine Scotland Science

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Your ref:
EC00003444

Our ref:
GB01T19K05

Date:10/08/2022

Dear Sirs,

ELECTRICITY ACT 1989

THE ELECTRICITY (APPLICATIONS FOR CONSENT) REGULATIONS 2017

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR BALLIEMEANOCH PUMPED STORAGE HYDRO SCHEME

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

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

Proposed Development

The proposed development comprises a Pumped Storage Hydro (PSH) scheme with a storage capacity of up to 45,000 MWh with up to 1,500 MW installed electrical generation capacity. The site is located approximately 4.4km to the south of Portsonachan and 9km north-west of Inveraray in Argyll and Bute. The nearest trunk road to the site is the A85(T) which lies approximately 8.6km to the north. The site will be accessed via the A819 local road. The SR states that in addition to the A85(T), the A83(T) would likely be used by a proportion of general construction traffic coming to the site from the east or south-west.

Assessment of Environmental Impacts

Chapter 14 of the SR presents the proposed assessment of the impacts associated with Access Traffic and Transport. We note that the thresholds as indicated within 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. Transport Scotland is in agreement with this approach.

The SR also indicates that potential trunk road related environmental impacts such as pedestrian delay, pedestrian amenity, accidents and safety etc will be considered and assessed where appropriate (i.e. where Institute of Environmental Management and Assessment Guidelines for further assessment are breached). These specify that road links should be taken forward for further detailed 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.

The SR indicates that the study area will include the A85(T), A83(T), A819, and the B840.

With regard to base traffic, the SR states that ATCs will be undertaken during a neutral month during 2022 which will provide two-way traffic flows and be classified by vehicle type, including HGVs. Figure 14.1 of the SR presents the proposed locations of these ATC counts. We note that in addition to A83(T) counts, only one count is proposed on the A85(T), located at Taynuilt – some 17km west of the junction of the A85(T) with the A819. Transport Scotland would state that base traffic in the vicinity of the A85(T)/ A819 junction should be used.

We note that it is proposed to establish design year traffic flows using "National Road Traffic Forecasts (Great Britain)," (NRTF) 'low' growth assumptions. Transport Scotland is satisfied with this approach.

We note that it is proposed that operational and decommissioning transport impacts will be scoped out of the EIAR. Transport Scotland considers this appropriate in this instance.

Abnormal Loads Assessment

We understand that development components will originate from the Inveraray Marine Facility. The SR states that it is not envisaged that abnormal load vehicles would use the A83(T); they will be transported to site via the A819 via an upgraded existing access track that runs to the north then east, from the A83(T), around the north of Inveraray. It also states that there are proposed upgrades to the existing unclassified road "Upper Avenue" at Inveraray and a new track linking this to the A83(T) at the proposed pier location.

Transport Scotland would state that any proposed changes to the trunk road network must be discussed and approved (via a technical approval process) by the appropriate Area Manager. At this stage, we would advise that 1:500 scale plans of any new or modified access from the trunk road should be submitted along with visibility splay plans. This will allow the standard of the junction to be assessed. It would be helpful to engage with the Area Manager for the A83(T) who is Neil McFarlane and who can be contacted at neil.macfarlane@transport.gov.scot.

Transport Scotland will require to be satisfied that any abnormal loads can negotiate the A83(T) junction, therefore, an Abnormal Loads Assessment and swept path analysis will be required.

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 0141 343 9636.

Yours faithfully

Redacted

Gerard McPhillips

Transport Scotland
Roads Directorate

cc Alan DeVenny – SYSTRA Ltd.