Craig Watch Wind Farm

Environmental Impact Assessment Report

Volume 4: Technical Appendices

June 2022

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TA 1.1: Consultation Register

Pre-scoping				
Consultee Name	**Date**	**Topic**	**Consultee Comments**	**Response (to be included in the EIAR)**
Statutory				
NatureScot	16/05/2019	Scope of ornithology and ecology surveys	- NS contacted by Avian (14/05/19) and provided with the proposed scope of ornithological and ecological surveys. - NS responded to confirm that it is in agreement with the scope of surveys proposes, and that the main ecology/ornithology consideration for development at this location will comprise the Tips of Corsemaul and Tom Mor Special Protection Area (SPA) breeding common gull colony.	Surveys were undertaken in accordance with advice provided (See Technical Appendix 8.1: Ornithology). An Information to Inform a Habitats Regulations Appraisal (HRA) related to the Tips of Corsemaul and Tom Mor SPA (and SSSI) is provided in Chapter 8.
	27/08/2019	Ornithology Vantage Point	- NS contacted by Avian (21/08/19) and advised on the requirement to force an amendment of a Vantage Point (VP) survey location, on account of access restrictions. Avian requested NS to advise on the appropriateness of an alternative VP location. - NS responded to confirm the requirement was acknowledged and did not see any issue as long as the alteration is duly acknowledged in the assessment.	Change to VP location to be presented in the EIAR. The alteration of VP2 has been detailed in Technical Appendix 8.1: Ornithology, and included in the Limitations and Assumptions in Chapter 8.
	04/05/2020	Ornithology Surveys	- NS contacted by Avian (09/04/20) upon the completion of Year 1 ornithology surveys, for advice on the requirement for further survey. - NS responded to agree that a full second year of ornithology survey would not be required and given the main ornithology considerations at this site (breeding common gull) only a second breeding season of ornithology surveys would be required.	Surveys were accordingly undertaken over a 18 month period (two breeding seasons 2019 and 2020 and one non-breeding season 2019-20), as detailed in Technical Appendix 8.1: Ornithology.
Aberdeenshire Council (AC)	22/12/2020	Traffic scope of work	In response to the letter from Pell Frischmann, which set out the proposed scope of the traffic and transport assessment methodology for Craig Watch, and proposed no traffic surveys would be undertaken due to traffic changes as a result of COVID-19: AC responded to state that the traffic and transportation section of the scoping report is fine and we will assess the EIA when submitted.	Noted. Traffic and Transport Chapter of the EIAR will present the results of the assessment.
		Abnormal Loads and Traffic Management Plan (construction)	The abnormal load route plans and construction management plan will be assessed by our Roads network management colleagues to identify any potential issues on the road network that need to be taken into account, such as planned road works, bridge load capacities etc	Noted. The Abnormal Loads Route and the traffic management plan for the construction phase will be presented in the EIAR.
Moray Council	29/01/2021	Traffic Count Information	Noted and agree that the inability to collect representative traffic count information would be acceptable subject to sight of the historic data, including the data and Grid reference.	See Moray Council Scoping Response dated 19/02/21.
			Request Clarification as to where on the A941 in Dufftown is referred to as the location of the count site, would this be Fife Street or Balvenie Street, or both?	
		Swept Path Analysis	Note the A941 leading from the A920 to the site access has varying widths and in places narrow verges. Note that abnormal load deliveries associated with the nearby Dorenell Wind Farm have used this road previously. However, Moray Council request that swept path analysis is undertaken for the entire length of this section of the A941 to identify the pinch points. MC advise undertaking a site visit when COVID-19 restrictions permit.	
Non-Statutory				
North East of Scotland Raptor Study Group (NESRSG)	03/05/2019	Ornithology	Contacted for ornithological records relevant to the site and surrounding area. NESRSG responded providing relevant records which have been used to identify target species and inform the scope of baseline field surveys.	Information obtained will be further used to inform the design and assessment of the Proposed Development.
RSPB Scotland	13/05/2019	Ornithology	Contacted for ornithological records relevant to the site and surrounding area. RSPB responded providing relevant records which have been used to identify target species and inform the scope of baseline field surveys.	Information obtained will be further used to inform the design and assessment of the Proposed Development.
North East Scotland Biological Records Centre (NESBReC)	17/05/2019	Ornithology and Ecology	Contacted for existing ecological and ornithological records (incl. non-statutory sites) relevant to the Site and surrounding area. NESBReC responded providing relevant records which have been used to identify any known sensitive features and inform the scope of baseline field surveys.	Information obtained will be further used to inform the design and assessment of the Proposed Development.
Scottish Wildcat Action (SWA)	11/11/2020	Context	Response from in relation to a possible wildcat sighting off-site and a request for wildcat records in the Site's vicinity.	N/A
		Wildcat Records	Plans provided showing wildcat records in the vicinity of the Site up to January 2020 for SWA project area. SWA advised they have verified public sightings of wildcat outside their project area. SWA advised to proceed on the assumption that there are wildcats using the wider area and possibly the area within the proposed site. Just northeast where Avian recorded the cat sighting SWA advised that it looks like a classic spot on a more or less south facing gorse slope. The forest itself, based on aerial maps, looks mostly single-aged mature plantation, which isn't in itself good wildcat habitat. But SWA noted that Avian is right that they may use the forest in conjunction with the open areas within the forest.	Noted. Avian will review the records and consider them in the baseline EIAR ecology chapter.
		Surveys	It is difficult to detect den sites during walkover surveys, so a camera survey might help identify particular areas that are regularly used. Happy to advise on methods for this if needed. Making any felling/construction contractors aware and retaining any features that might be used as resting sites would be good. These can include windthrow (though there's not a lot of that?), brash piles, log stacks etc. The gorse may also be used for resting/denning.	No further survey is proposed. SWA confirmed that much of the Site (mono-conifer plantation) is sub-optimal for wildcats, and that 1-2 areas off-site look more appropriate for the species. The HMP will include suitable habitat enhancement measures - see below.
		HMP	A commitment to habitat enhancement would be good. The best habitat is a deciduous woodland, scrub and grassland mosaic. Structurally diversifying the conifer plantation (i.e., different aged coupes) can be helpful too. Connecting the forest to the neighbouring Clashindarroch forest is another potential improvement. I see there is a footbridge at Mill of Lynebain which cats may use to cross the Deveron and so could form part of any connecting corridor.	Habitat enhancement is proposed and is outlined within the Technical Appendix 7.5 of Volume 4. Enhancement proposals and compensatory planting are also subject to landowner discussions and therefore have been given consideration.
		Consultation	The SWA project is now finished. We have handed over to a new project called Saving Wildcats, who are concentrating on wildcat releases in the Cairngorms but will continue to work in the SWA areas, thought at a lower level. At some point you may want to bring them into the consultation process.	Saving Wildcats was added to the list of consultees and agreed with ECU.

Atkins	06/11/2020	EMI	The application has been examined in relation to UHF Radio Scanning Telemetry communications used by our Client in that region and we are happy to inform you that we have NO OBJECTION to your proposal. Please note that this response is not in relation to any Microwave Links operated by Scottish Water. Atkins Limited is responsible for providing Wind Farm /Turbine support services to TAUWI.	EMI specialist confirmed that he has reviewed the Ofcom Spectrum Information Portal which confirmed no links affecting the site, including Scottish Water. No further action required.
Joint Radio Company	06/11/2020	EMI	Based on a review of the Scoping Turbine Layout JRC advised that: in the case of this proposed wind energy development, JRC does not foresee any potential problems based on known interference scenarios and the data you have provided. However, if any details of the wind farm change, particularly the disposition or scale of any turbine(s), it will be necessary to re-evaluate the proposal.	The footprint of the wind farm has reduced since the layout that we consulted JRC on so the impact would only be less. Therefore no further consultation required.
Ofcom	11/11/2020	EMI	Ofcom doesn't accept direct consultations any more. The baseline fixed links environment is determined by accessing the Ofcom Spectrum Information Portal and viewing their map-based data. The EMI specialist also checked, via an OS grid reference search, the Ofcom Wireless Telegraphy Register, to tie up what's on the map with the licence details for links in the area. The review confirmed no fixed links on-site. The Ofcom Spectrum Information Portal identifies two fixed telecommunications links within 3 km of the Site. These are Airwave microwave links running from Ardwell, south of the Site, to Succoth, then north to Glass.	This information has been included within the chapter.
Scoping				
Consultee Name	**Date**	**Topic**	**Consultee Comments**	**Response (to be included in the EIAR)**
Scottish Government				
Energy Consents Unit	19/03/2021	Consultation	Consultation on the scoping report was undertaken by the Scottish Ministers and commenced on 20 November 2020 and closed on 11 January 2021.	Noted.
			Unless otherwise stated, Scottish Ministers expect the EIA Report to include all matters raised in responses from the consultees and advisers and to consider in full all consultation responses received.	Noted. All matters raised, where appropriate, will be included within the EIA Report.
			No responses were received from: Civil Aviation Authority, Crown Estate Scotland, Fisheries Management Scotland, Deveron, Bogie & Isla Rivers Charitable Trust, John Muir Trust, Mountaineering Scotland, Nuclear Safety Directorate, Scottish Rights of Way and Access Society (ScotWays), Scottish Wildlife Trust, Scottish Wild Land Group, Visit Scotland, BAA Aerodrome Safeguarding (Aberdeen), Glasgow Airport, Edinburgh Airport, BAA Aerodrome Safeguarding (Edinburgh), Glasgow Prestwick Airport, Highland and Islands Airports, Scottish Wildcat Action, Saving Wildcats, Strathisla Community Council, Dufftown and District Community Council, Strathbogie Community Council, Huntly Community Council, Tap O' Noth Community Council. It is assumed that these consultees have no comment to make on the scoping report, however each would be consulted again when an application is submitted.	Noted.
			The Scottish Ministers are satisfied that the requirements for consultation set out in Regulation 12(4) of the Electricity Works (Environments Impact Assessment) (Scotland) Regulations 2017 have been met.	Noted.
			When finalising the EIAR, applicants are asked to provide a summary in tabular form of where within the EIAR each of the specific matters raised in this scoping opinion has been addressed.	Noted. This Consultation Register will form a Technical Appendix to the EIA Report and will include where the matters raised in the Scoping Opinion have been addressed.
		Scope	Scottish Ministers are satisfied with the scope of the EIA as set out in Section 3 of the Scoping Report.	Noted.
		Batteries / Solar Panels	If the development includes or may include battery storage and/or solar panels further information may be required in the EIAR if not available at the scoping stage. The Proposed Development set out in the Scoping Report refers to wind turbines, and grid technologies including battery storage and/or solar panels. Any application submitted under the Electricity Act 1989 requires to clearly set out the generation station(s) that consent is being sought for. For each generating station, details of the proposal require to include but not limited to: •the scale of the development (dimensions of the wind turbines, solar panels, battery storage) •components required for each generating station •minimum and maximum export capacity of megawatts and megawatt hours of electricity for battery storage	Noted. The development description includes a description of the key elements of the Proposed Development and the battery storage proposals have also been included within the noise assessment within Chapter 11.
		Mitigation Measures	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 environmental assessment, provided in tabular form, where that mitigation is relied upon in relation to reported conclusions of likelihood or significance of impacts.	Noted. Mitigation measures identified in each chapter will be summarised in a concluding paragraph. A schedule of mitigation will be produced and included within the Summary Chapter.
		Further consultation	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, and finalisation of viewpoints, cultural heritage, cumulative assessments and request that they are kept informed of relevant discussions.	Noted. Further consultation has been undertaken and included where relevant in sections below.
		Hydrology, Hydrogeology & Geology		
		Scottish Water - drinking water protected areas	Scottish Ministers request that the company contacts Scottish Water (via EIA@scottishwater.co.uk) and make further enquires to confirm whether there any Scottish Water assets may be affected by the development, and includes details in the EIAR of any relevant mitigation measures to be provided.	Ramboll contacted Scottish Water (16/04/2021) (EIA@scottishwater.co.uk) to request whether there any Scottish Water assets that may be affected by the Proposed Development. Scottish Water's response (21/04/2021) did not indicate that there were any assets that may be affected and it was confirmed that there are no Scottish Water assets in the Site boundary.
		PWS	Scottish Ministers request that the Company investigates the presence of PWS which may be impacted by the development. The EIAR 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.	Moray and Aberdeenshire Councils have been contacted to provide records of PWS. The results have been considered in the Site's design have been reported in the EIAR. Postal enquiries were issued to land owners of properties within the redline boundary of the Proposed Development. The Proposed Development has been set out such that infrastructure shall be at a suitable buffer from private water supplies. On this basis, no further surveys of the PWS locations were carried out. Assessment of potential impacts, risks, and any mitigation which would be provided is included in Technical Appendix 9.3.
		Peat	There is a requirement for peat landslide hazard risk assessment (PLHRA). 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 an assessment and details of mitigation measures.	Noted. PLHRA has been undertaken and included as Technical Appendix 2.5 of the EIAR. The stated guidance has also been taken into consideration.
		Ecology	MSS provided advice	Refer to MSS response below.
		LVIA		

		Viewpoints	Moray Council has requested additional viewpoints.	Refer to Moray Council response below.
		Night time assessment	The LVIA must include a robust Night Time Assessment with agreed viewpoints to consider the effects of aviation lighting and how the chosen lighting mitigates the effects	The Lighting Assessment is presented in Technical Appendix 5.8. A selection of representative night time viewpoints was agreed with Aberdeenshire and Moray Councils, and representative visualisations are presented in Volume 3a: Figures.
		Cultural Heritage	HES has provided advice on visualisations.	Refer to Historic Environment Scotland response below.
		Noise	The noise assessment should be carried out in line with relevant methodology detailed in section 3.8 of the scoping report. The noise assessment report should be formatted as per Table 6.1 of the IOA "A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise.	The noise assessment has been undertaken in accordance with these documents. Technical Appendix 11.2 contains all the information requested in Table 6.1 of the IOA GPG.
Statutory Consultees				
Aberdeenshire Council	22/01/2021	**LVIA**		
		Study Area	The proposed study area of 45 km from the outermost turbines of the development is in line with standard practice and is acceptable. The approach indicated within the scoping report also seems appropriate.	Noted.
			ZTVs should be included within the EIAR including the ZTV for the development on its own with a separate ZTV showing the development along with other wind energy developments within the study area to demonstrate cumulative impacts.	Hub height and Tip height ZTVs for the Proposed Development and cumulative ZTVs are included in Volume 3a: Figures.
			Recommend that ZTVs showing previous design iterations be included within the EIAR to demonstrate how the progression of the design phase has altered the anticipated impacts.	This has been included as Technical Appendix 3.1.
			It's noted that the study area includes various landscape designations as noted within the Scoping Report. It's encouraged that viewpoints should be identified from areas throughout these designations where the ZTVs indicates a potential impact.	Viewpoints selected represent a wide receptors, including designated landscapes where the ZTV indicates extensive visibility, or visibility from sensitive areas of that landscape. Viewpoints were agreed with Moray Council, Aberdeenshire Council and NatureScot prior to the assessment being undertaken.
		Scope of Assessment	The proposal to discount the North Aberdeenshire Coast SLA from the LVIA is acceptable for the reasons stated within the scoping report. If there is no visibility from the Howe of Cromar SLA, Dee Valley SLA and Clachnaben and Forest of Birse SLA as suggested it is appropriate to discount these from the LVIA. In the 'effects scoped out' section of the EIAR LVIA chapter for clarity an explanation for their exclusion should be provided. Should the design iteration change from what is proposed, this should be re-assessed	Those receptors which have been scoped out have been stated within Chapter 5: LVIA.
		Visual Receptors	The approach regarding the assessment of visual receptors is acceptable. The precautionary approach to include properties within 5 km of the Proposed Development site is welcomed should it be considered that there is a potential for overbearing effects. It is encouraged that a commentary of the assessment of the houses considered should be included within the RVAA for clarity.	Commentary on the properties included in the assessment are outlined within Technical Appendix 5.7: Residential Visual Amenity Assessment
		VPs	The preliminary VPs included within the scoping report appear acceptable at this time and include a variety of receptors. It is reminded that VPs should be taken from the various landscape designations within the study area.	Viewpoints selected represent a wide receptors, including designated landscapes where the ZTV indicates extensive visibility, or visibility from sensitive areas of that landscape. Viewpoints were agreed with Moray Council, Aberdeenshire Council and NatureScot prior to the assessment being undertaken.
		Borrow Pits	A comprehensive study of any proposed borrow pits be included within the landscape and visual impact assessment. The EIAR should include details of the location, area, depth, extraction volume, method of extraction and sections of the borrow pits. The extent of the borrow pit should also be included on photomontages of the development. Without these images and details, it is unlikely that a full assessment of the potential impacts can be taken.	At this stage, the detailed design of the borrow pits is not known. Detailed ground investigation will be required to provide information on the information required. The LVIA has taken into account the impact of a borrow pit within the proposed area of search, and this area is shown on the visualisations.
		Cumulative	In terms of the CLVIA, all developments in planning, including those at scoping stage, should be included. There is a cluster of developments forming in this area, including the Clashindarroch development (including extensions) and Garbet and so this should be considered with the potential for all developments to take place. It is recommended that where there are various developments proposed in close proximity to one another, some level of co-ordination should be taken to ensure the scale/layouts of the developments minimise potential adverse cumulative visual effects.	Developments in planning, including those in proximity to the Site which are at scoping stage, have been included within the CLVIA. They have also been included within the cultural heritage chapter for consistency, however as there is much uncertainty around schemes only at the scoping stage, these have not been included within other chapters.
		Cultural Heritage		
		Study Area	The proposed study areas of 1 km, 5 km and 10 km as outlined within the scoping report are considered appropriate.	Noted.
		Cumulative Effects	Concern raised from Infrastructure Services (Archaeology) that the scale and number of wind turbines proposed would act cumulatively with others (operational, approved and pending developments) to impact upon the historic environment.	A cumulative assessment on cultural heritage assets will be presented in the EIAR.
		Heritage Assets	There is no reference to Craig Dorney hillfort in the scoping report. Given that this regionally significant hillfort is within 400 m of a proposed wind turbine and <300 m from the site boundary, it is recommended this be included within the study. It is also recommended that a LiDAR survey of the Proposed Development site is undertaken (in addition to the desk based assessment and walkover survey as outlined within the scoping report) as it is likely that remains extend beyond the demarcated area within the HER.	Craig Dorney fort will be considered within the cultural heritage chapter in the EIAR which will be have been informed by site visits, ZTV analysis and visualisations. A walkover survey between the Site boundary and Craig Dorney identified a number of hitherto unrecorded features which will be considered within the cultural heritage chapter in the EIAR. Please see response below regarding LiDAR.
			It is recommended that VIA's for Tap o'Noth hillfort and Craig Dorney hillfort are included.	Setting assessment including production of photomontages for Tap o'Noth was set out in the scoping report and would be included in the EIAR. Setting assessment and photomontages for Craig Dorney hillfort will be included in the EIAR.
		Mitigation	It is reminded that there may be a requirement for archaeological mitigation in the form of watching briefs and/or fencing off assets for the duration of the work.	Mitigation measures will be presented in the Cultural Heritage chapter of the EIAR.
		Cultural Heritage ACAS Consultation Letter		

Heritage Assets - LiDAR From Ramboll To ACAS	Whilst conduction the site walkover, previously unrecorded assets identified within the red line boundary were either further elements of previously recorded assets e.g. further walls and structures associated with Linn Burn (NJ33NE0018) or were shooting butts. In the area walked between the red line boundary and Craig Dorney fort, there were a few potential unrecorded assets. For example, along the fence line there was an ephemeral, possible platform (Site 179), a possible clearance cairn (Site 180), and what could have been a much degraded wall (Site 181) leading towards the forest. These potential assets were located to the southeast of the post-medieval house, NJ33NE0017, so could be associated with that asset rather than the fort. To the north of, and outwith, the red line boundary, between the above-mentioned post-medieval house and Craig Dorney, we also recorded a large stone mound that appears to have a set outer edge (Site 182). It is topped by a straight stone dyke. We tentatively interpreted this as a reused cairn. Two other features, a potential structure (Site 184) and a possible denuded cairn (185) were noted to the northeast of this. Attached are a few photos of these for your information. We are conscious of your previous comments on the use of LiDAR. As a line-of-sight technique, ALS or LiDAR can only be effective where forest cover is sufficiently sparse to allow penetration of the laser to the ground surface, i.e., in deciduous forest (if surveyed in winter) or in relatively sparsely planted conifers. While archaeology has been identified in conifer plantation in some areas of Scotland using ALS, in general the results are low-resolution and poor quality, meaning that it would be difficult to justify the expense of an ALS survey purely for archaeological survey in dense plantation forest given the limited results it's likely to produce. Other aerial survey techniques, such as drone-based photogrammetry, would have the same limitation, being reliant on line-of-sight to the ground. Considering the difficulties encountered on the ground, and the likelihood that LiDAR survey will not provide suitable data, we would suggest that mitigation would likely have to be undertaken post-determination and would propose that this include further walkover survey following the felling of trees but prior to construction and/or application of an archaeological watching brief on groundworks within the currently forested area. This would enable identification of any heritage assets present and allow for avoidance of impacts using the micrositing allowance or, should avoidance not be feasible, would ensure that assets were fully recorded prior to removal.	N/A
From ACAS to Ramboll	We would accept your recommendation on the LiDAR survey not being an appropriate recording tool in this particular area of woodland, and note your proposal to recommend that further mitigation required is undertaken post felling but in advance of construction work.	Noted.
Ecology		
Study Area	It is understood that the study areas will be altered in order to consider all design iterations prior to the submission of an application, however the desk-study study areas of 2 km, 5 km and 10 km from a central point appear appropriate in the first instance.	Noted. Study area will be discussed in the Ecology chapter of the EIAR.
Designated Sites	It is noted that there are various designated sites within the 10 km study area which should be considered within the EIAR along with any mitigation or best practice measures to manage any anticipated impacts.	Noted.
Surveys	The proposed surveys are sufficient at this stage, however it is reminded that additional surveys and studies may become apparent at a later date.	Noted. Additional ecology surveys were conducted for access track areas in Spring 2021.
Protected Species	Noted that a potential wildcat was identified adjacent to the site and you are consulting with Scottish Wildcat Action. As there is a known presence of wildcat within the area it is strongly recommended that the potential impacts upon wildcat and any mitigation to minimise these be covered fully within the EIAR.	Noted. Potential impacts on wildcat will be considered in the EIAR and any necessary mitigation detailed within.
Scope of Assessment	The issues scoped out of the assessment are noted. Consultation with Infrastructure Services (Environment – Natural Heritage) has raised no concerns with the content of the scoping report.	Noted.
Ornithology		
Scope of Assessment	Consultation with Infrastructure Services (Environment – Natural Heritage) raised no concerns with the content of the scoping report or the approach taken. It is within the scope of both NatureScot and RSPB to consider the impacts upon ornithological interests and would be best placed to make detailed comments on this section of the scoping report.	Consultation has been undertaken with NatureScot and RSPB. Please refer to details of consultation below.
Mitigation	Recommended that the EIAR includes details of best practice measures and mitigation proposed to avoid significant effects from the development, along with any enhancement measures. The proposal to submit an Outline HMP with the EIAR is welcomed.	Noted. Mitigation measures will be presented in the Ornithology chapter of the EIAR. An OHMP is provided as Technical Appendix 7.5.
Hydrology, Hydrogeology & Geology		
Hydrology Study Area	The proposed study area of the site area plus a 250 m buffer in relation to impacts on water resources is typical and appropriate as a baseline, however this may need to be increased should connectivity downstream be identified.	Downstream receptors will be taken in to account in the assessment, including potentially sensitive receptors in excess of 250 m of the site.
Peat Study Area	In terms of peat and carbon rich soils, the study area being limited to the site area is suitable, however NatureScot may request otherwise.	Noted. Consultation is being undertaken with NatureScot. Please refer to NatureScot consultation below.
Scope of Assessment	It is within the scope of both SEPA and NatureScot to consider these topics closely and may request additional information to be included within the EIAR.	Noted. Consultation is being undertaken with NatureScot and SEPA. Please refer to NatureScot consultation below.
	Infrastructure Services (Environment – Natural Heritage) raised no concerns relating to the information contained within Hydrology, Hydrogeology & Geology of the scoping report. No response has been received from Infrastructure Services (Flood risk and coastal protection) at present. An addendum to this scoping response was issued at a later date - see below.	Noted.
Traffic & Transport		
Transport Assessment	The inclusion of a TA within the EIAR is supported.	A TA is provided in Technical Appendix 10.1
Study Area	It is noted that the study area will be defined by the preferred abnormal load and construction traffic routes. Should the preferred routes be within the Aberdeenshire Council area, please get in contact to discuss this, along with the construction traffic management plan to identify any potential issues (i.e., planned road maintenance etc) prior to a formal application submission.	It is proposed that abnormal load and construction traffic routes would be within Aberdeenshire Council area. Details of the construction traffic route is presented in the TA in Technical Appendix 10.1 while the proposed AIL delivery route is presented in Technical Appendix 10.2. The access route arrangements for the AIL and construction vehicle deliveries will be detailed in the Construction Traffic Management Plan which will be agreed post consent and will be informed by discussions with Aberdeenshire Council and Moray Council.

		Scope of Assessment	Consultation with Infrastructure Services (Transportation) has not raised any concerns with the content of the scoping report or the approaches outlined within it. A response is anticipated from Infrastructure Services (Roads Development). This will be forwarded at a later date as an addendum to this Scoping opinion.	Infrastructure Services (Roads Development) will be consulted in relation to the delivery routes detailed in the Construction Traffic Management Plan which will be agreed post consent.
		Noise & Vibration		
		Consultation	Noted that discussions between the appointed acoustic consultant and our Environmental Health Officer have already begun. This is indeed positive and is something which is encouraged to continue throughout the pre-application stage to ensure the submission includes all relevant data.	Noted.
		Methodology & Guidance	Infrastructure Services (Environmental Health) confirms that the noise impact assessment must be in accordance with the advice given in ETSU-R-97, the IoA Good Practice Guide and associated Supplementary Guidance Notes, and Aberdeenshire Council advice contained in https://www.aberdeenshire.gov.uk/media/2646/20150206wtguidancenote.pdf No other comments regarding the content of the scoping report was given.	The operational noise assessment has been undertaken in accordance with ETSU-R-97 and the IOA GPG. The AC Submission Guidance Note refers to a reduced noise limit during the night time period of 38 dB or background plus 5 dB whichever is the greater. The noise assessment for the Proposed Development has been undertaken in accordance with ETSU-R-97 which recommends that the night time limit should be based on 43 dB or background plus 5 dB whichever is the greater. A set of noise limits based on the lower night time limit recommended by AC has also been provided for information purposes in Annex 8 of Technical Appendix 11.2.
		Aviation Lighting	It is within the scope of the MoD and NATS to comment on this section. It is reminded that aviation lighting of 2000 cd and a lower 200 cd should be shown within the visualisations of the development.	Noted.
		Socio-economics	Proposal to scope-out effects on population and demographics (in terms of health, housing and education) and tourism and recreational locations is noted. Given that the potential effects on visual amenity from tourism and recreational facilities would be included within the landscape and visual amenity section of the EIAR, the scoping out of these effects are acceptable. Accommodation provision during the construction phase should be considered.	Noted. Potential effects on visual amenity from tourism and recreational facilities will be included within the landscape and visual amenity section of the EIAR and therefore will not be assessed in the Socio-economics chapter of the EIAR. Accommodation provision during the construction phase will be considered in the Socio-economics chapter of the EIAR.
		Forestry	The study area of the site area is noted and accepted. Scottish Forestry will consider the proposals in greater detail. Infrastructure Services (Environment – Natural Heritage) raised no concerns in relation to the content or approach within their consultation. It is reminded that any compensatory planting plans should be included within the EIAR for consideration.	Outline compensatory planting (CP) proposals have been provided within the Outline CP Plan.
		Shadow Flicker	The content of section 3.12 of the scoping report is noted. No comments are made by (Infrastructure Services (Environmental Health) on the matter.	Noted.
		Climate	The contents of section 3.13 of the scoping report is noted. A carbon calculator relating to the carbon savings should be included within the EIAR, however this may be most suited to be within the peat section.	Noted.
		Scope of EIAR	It is agreed that Air Quality/Ice Throw/Population and human health/risk of major accidents and/or disasters can be scoped out of the EIAR.	Noted.
		Derelict Properties	It is agreed that Timberford can be considered abandoned. More information is needed in respect of the other two properties ('Chapel Hill' and 'Unknown Building') within Aberdeenshire before Aberdeenshire Council could consider agreeing to scope these out from the noise survey. Aberdeenshire Council would therefore request that these are included in the noise modelling until/unless such time as we have considered further submissions from you to support your view that they are indeed abandoned. If it is concluded by the submission of additional information that the buildings are abandoned, then an application to bring it back into a residential use would be needed and a consideration of any noise impacts from the development could be taken into account. If it can't be concluded that the buildings are indeed abandoned, then applications to refurbish/renovate the buildings may be a 'householder' application where the principle of the building being a house would not be under consideration and therefore likely more difficult to raise any objection/refuse for noise issues.	Chapel Hill and 'Unknown Building' have been included within the noise modelling. The consideration of properties for assessment has also been agreed wit the Local Authorities.
Aberdeenshire Council	29/01/2021	**Surface Water Runoff**	It is possible that the site may increase run off and as such an indicative drainage design should be submitted as part of the EIAR. As part of industry guidance and practice, drainage should be discharged locally to open ground/forest where possible by regular cross drains discharging to the downhill side of the road. Effort should be made to avoid directing run off from tracks and hardstanding towards existing watercourses, however should this be the approach taken, typical track details (including drainage arrangements) and watercourse crossings together with a maintenance schedule is likely to be sufficient to address our interests.	The principles of drainage design have been presented in the EIAR (in terms of reduction to a greenfield rate, discharge to areas of vegetation a suitable distance from watercourses, and installation of cross drains) and commit to a drainage design being prepared by the contractor prior to the commencement of work. A 50 m buffer has been applied from the Proposed Development to watercourses (with a couple of exceptions stated in the EIAR), to allow distribution of drainage from the Site across suitable areas. Where encroachment to the 50 m buffer is unavoidable, specific mitigation measures are also outlined. Principles by which alterations in surface water runoff shall be avoided are set out in the EIAR with reference to applicable SEPA best practice guidance and relevant CAR requirements. We do not propose to provide an indicative drainage design as part of the EIAR submission. At this stage, the EIAR sets out drainage principles to ensure changes in runoff rates or water quality as a result of the Proposed Development are avoided. Post-consent of the Proposed Development, a detailed site drainage plan would be prepared by the Principal Contractor in line with findings of the EIAR assessment, that would ensure compliance with Controlled Activity Regulations (CAR) and SEPA construction site permitting requirements. It is further anticipated that requirements for site drainage would be subject to condition by the planning authority. The detailed drainage design would be based on site specific drainage calculations for the management of surface water runoff and would determine the location and sizing of drainage assets across the site (including the sizing of drains, the locations of cross drains and outflows, the sizing and location of SuDS features and any surface water attenuation features). The provision of an indicative drainage design with the EIAR could present drainage configuration that would be subject to alteration at the detailed design stage, or which could fail to integrate with the design to be set out by the appointed contractor prior to the commencement of construction at the Site.
			It's also noted that while it is often considered that the proposed roads/tracks and hardstanding areas are permeable, the trafficking during construction compresses the material and so we consider these areas to be effectively impermeable.	Principles for drainage associated with tracks and the management of surface water runoff are set out in the EIAR. Detailed drainage plans would be prepared by the appointed contractor to specify SuDS drainage measures such that the Proposed Development shall not lead to an increase in runoff rates from tracks.

		Flood Risk	No Flood Risk Assessment is required.	Flood Risk Assessment is scoped out of the EIA. All watercourse crossings shall provide conveyance for the 1 in 200 (0.5%) flow, inclusive of climate change allowance.
Moray Council - EHO	24/12/2020 & 19/01/2021	**Noise**		
		Methodology	Welcome the methodology in general terms as working within the framework of ETSU-R-97, the IOA Good Practice Guide and Supplementary Guidance Notes (SGN's). Moray Council wind energy guidance should also be taken cognisance of and is available at the following link. http://www.moray.gov.uk/downloads/file118604.pdf. It would seem useful to clarify if there is the possibility of blasting for borrow pits, or the use of mobile screening plant in the construction phase, if known at this stage.	Noted. Borrow pits have been included within the construction assessment. Further detail on consultation is provided in Annex 2 of Technical Appendix 11.2.
		Headroom	Note and agree in principle on the concept of utilising available headroom, as described in 5.4.11 of IOA GPG. I would like to discuss this aspect with colleagues in Aberdeenshire before replying in full on a notional dB increase.	The EHO from Moray Council responded on behalf of Moray and Aberdeenshire Council. The EHO stated agreement to the use of the available headroom as detailed within the IOA GPG (Paragraph 5.4.11) to derive Site Specific Noise Limits (SSNL). Where headroom exists, the use of a +2 dB buffer above predicted levels was agreed to calculate the SSNL subject to fixed minimum noise limits of 35 dB or background +5 dB daytime and 40 dB or background +5 dB night time (Moray) and 38 dB or background +5 dB night time (Aberdeenshire). In terms of cumulative and taking account of the existing consented and proposed schemes the EHO suggested the use of a daytime fixed minimum limit towards 40 dB. Full details of the consultation will be included within Technical Appendix 11.2: Operational Noise Report, of the EIAR.
		Noise Monitoring Locations (NML)	Monitoring locations – Glenmarkie and Newtown of Glenmarkie – I would propose to site visit there in the first week of January and clarify their current status as uninhabitable, as well as a look at the proposed locations. I also will carry out a planning search to see if there are live consents and get back to you. Following a site visit on 19/01/21 the EHO advised: He managed to visit some of the properties this morning, but due to heavy snow and ice didn't manage as far as Glenmarkie. Noted that Newton of Glenmarkie has two houses at the site and all windows boarded up (uninhabited). I couldn't say if they are uninhabitable and it may be feasible to redevelop these without planning permission. Both appear to not have been lived in for some time. Having regard to our GIS planning, I don't see any other planning permission for residential development nearer than the existing properties around the development in Moray. Update 23/04/2021: Douglas Caldwell has agreed that all properties identified are either derelict or abandoned. He agreed that all identified properties come within the derelict/ abandoned/ uninhabitable category and don't need to be considered within the noise assessment as noise sensitive receptors.	Noted. These properties have not been considered within the noise assessment as noise sensitive receptors. Further detail on consultation is provided in Annex 2 of Technical Appendix 11.2.
		Noise Monitoring	Welcome an invitation to attend installation of noise monitoring equipment, subject to my availability at the time.	It should be noted that the EHO attended the visit to install the noise monitoring equipment.
		Cumulative Development	Braetown 11/01422/APP 20 kw single turbine –my records show this as at a status of "Approved Or Under Construction". I would hope to carry out a site visit to recheck the current situation. It would seem prudent to account for it at the time of writing. Following site visit on 19/01/21 the EHO advised: In relation to Braetown I don't see the 20 kw turbine erected on site and permission appears to have lapsed for a 2011 consent.	Braetown will not form part of the cumulative noise assessment.
		Daytime Fixed Limits	Daytime fixed limits – I think this will be influenced by the timing of other nearby developments to some extent and where this sits in the planning timeline. Further discussion with colleagues in Aberdeenshire would be helpful early in the New Year.	The initial feedback provided in relation to fixed limits above is sufficient and has been adopted.
	29/03/2021	**Derelict Properties**	Additional consultation to confirm approach for derelict property assessment (29/03/2021). Douglas Caldwell agrees that all identified properties are all either derelict/ abandoned /uninhabitable category and don't need to be considered within the noise assessment as noise sensitive receptors.	Noted.
Moray Council	19/02/2021	**Forestry**	The submitted plan shows the development occupying an area of existing woodland. It is important that the matter of compensatory woodland planting is fully addressed in the EIA Report and ideally areas for such compensation are identified up front (preferably in the same locality).	The requirement for compensatory planting is noted and will be presented in the EIAR. Compensatory planting has been discussed in further detail with NatureScot. Please see NatureScot-Compensatory Planting Below.
			As LVIA Design below	See response below.
			Garbet Wood, within the site boundary, is identified on the Ancient Woodland Inventory (AWI), although it would appear that this woodland will be unaffected by development. Whilst not designated as 'ancient woodland' on the Ancient Woodland Inventory (AWI), this is not definitive and the AWI should only be considered as a starting point. Given that LEPOs can develop the characteristics of ancient woodland, should any woodland removal be proposed at Garbet Wood, the Applicant will be required to demonstrate the value of the woodland by way of a detailed woodland survey, carried out at the appropriate time of year by a suitably qualified consultant who has experience of woodland habitat surveys which must include a National Vegetation Classification (NVC) Survey and map with site community floristic descriptions, target notes and locally important site features as well as an assessment of the role and importance of the Garbet Wood's connectivity to the wider woodland network. Should the detailed survey establish that Garbet Wood is classed as ancient woodland, the proposal will be contrary to Policy EP7(c).	This has been noted, however Garbet Wood is not affected by the proposals. Policy EP7 has been considered within the Forestry Impact Assessment.
		Drainage	If any new welfare facility is proposed for site staff, details of water supply and foul drainage arrangements must included in EIA Report.	Noted. The development description chapter outlines the key elements relating to welfare facilities and infrastructure proposed to be included within the temporary compound.
		LVIA		
		Methodology	The Scoping Report dated November 2020 sets out the methodology and scope of the Landscape and Visual Impact Assessment (LVIA). The Council agrees in general with the methodology to be adopted for the LVIA and with the Study Area being defined as 45 km from the proposal. Further comments on detailed matters are set out below.	Noted.
		Design	Detailed consideration should be given to the landscape and visual effects of felling and restocking proposals (both adverse and beneficial) in the LVIA and mitigation and landscape enhancement should be optimised design of any Wind Farm Forest Plan and/or compensatory planting.	The LVIA team have worked with the forestry consultant to understand implications of felling. These implications are included in the LVIA where appropriate.
			Proposed forest felling areas should be shown in relevant visualisations from nearby viewpoints.	Forestry felling has been included within photomontages. The LVIA photomontages can be found in Volume 3a,

		Please note that within the current non-statutory Moray Onshore Wind Energy Supplementary Guidance, the A941 passing the site is classed an identified scenic route into Moray.	The A941 is considered as part of the assessment of effects on transport routes, presented in Chapter 5: LVIA.
		Mitigation of visible aviation lighting should be thoroughly considered in the EIAR.	Lighting mitigation is presented within Chapter 12: Aviation.
		All the proposed turbines (within Moray) are located within an area with potential for wind farm development of turbines over 35 metres to tip height, with no upper height limit identified (Moray Local Development Plan (MLDP) 2020).	Noted.
		The Moray Onshore Wind Energy (MOWE) Non-Statutory Guidance 2020 identifies areas of strategic capacity for wind farms with the greatest potential for development - 9 of the 11 turbines are located within an area of greatest potential for Very Large Turbines, Extensions and Repowering.	Noted.
	Policy - Landscape Capacity	MOWE Non-Statutory Guidance 2020 and Moray Wind Energy Landscape Capacity Study 2017 are material considerations for development management purposes. The Guidance identifies five typologies of wind turbine, including “Very Large 130 m - 150 m” (to blade tip), and highlights that there is very limited scope to accommodate further large scale wind turbine developments in Moray in landscape and visual terms.	The proposed design has considered what a 180 m turbine would mean in relation to the guidance set out in the MOWE for Very Large wind turbine typologies. The design of the wind farm has also taken into account the cumulative and the emerging pattern of wind farm development within the area surrounding the Site. These conclusions are presented in Chapter 3: Design Alternatives.
		The Proposed Development is located within the Open Uplands with Settled Glens [12b] Landscape Character Type (LCT) as defined in the Guidance and Landscape Capacity Study. LCT12b is assessed as having a High sensitivity to the very large typology (turbines >130 m), with no scope to accommodate additional turbines of this scale in this landscape due to the limited extent of remaining uplands without operational and consented wind farms and the presence of significant landscape and visual constraints associated with the remaining undeveloped area. The operational Dorenell, Clashindarroch and Kildrummy Wind Farms lie within and close-by this landscape and this increases sensitivity in relation to potential cumulative landscape and visual effects.	An assessment of effects on Landscape Character is presented in Technical Appendix 5.3. Findings of this assessment are summarised in Chapter 5: LVIA.
		The Moray Council are currently undertaking an update of the Landscape Capacity Study 2017 in accordance with NatureScot’s guidance on Landscape Sensitivity Studies.	No information has been released with regards to this assessment at the time of writing. Therefore the LVIA presented in this chapter has taken account of the 2017 Moray Wind Energy Landscape Capacity Study.
		There are concerns regarding the number, siting and heights of the proposed turbines which has the potential to have significant adverse landscape and visual impacts, in addition to cumulative impact.	Chapter 3: Design Evolution and Alternatives presents a commentary on the design reviews which were carried out to ensure the Proposed Development is the best fit for the Site. An 'in-combination' and 'in-addition' cumulative landscape and visual effects assessment is presented in Chapter 5: LVIA.
	LCTs	The Council agrees with the general scope of the LVIA although we recommend that the assessment of effects on landscape character should be more focussed than set out in the Scoping Report to provide detailed consideration of effects on LCTs lying within approximately 20 km of the site. We would prefer to see a more thorough assessment where effects are most likely to be significant than a lengthy and more cursory assessment of a great many LCTs.	The Landscape Character Assessment is presented in Technical Appendix 5.3. The assessment has focussed on those LCTs where there is considered likelihood for significant effects. Where LCTs have been scoped out of the assessment, a justification for this is provided.
		We note that it is proposed in the Scoping Report to use both the NatureScot online landscape character classification and the landscape character classification used in the 2018 Moray Wind Energy Landscape Capacity Study (MWELCS) for the landscape character assessment. We would advise that the assessment of effects on landscape character within Moray should be based only on the detailed classification in the MWELCS, particularly given the context of a more focussed assessment as advised above.	Further consultation undertaken with Moray Council following the receipt of the Scoping Opinion set out the more detailed approach to the assessment of effects on LCTs. The agreed approach entailed: Use of NatureScot LCTs, supplemented with information from the 2017 MWELCS due to: - NatureScot’s LCTs providing the most up to date classifications and descriptions; and - NatureScot’s LCTs covering the full LVIA study area. This approach has been supplemented by info in the 2017 MWELCS. The boundaries for NatureScot’s LCTs and MWELCS are largely the same, with some slight differences in the south of the Moray administrative area, and to the naming of LCTs. Where units are defined, these have also been described (e.g. the NatureScot LCT covering the site is Open Moorland LCT which is divided into Open Moorland with Steep Slopes and Open Moorland with Settled Glens in the 2017 MWELCS). The assessment of effects on LCT will focus on those LCTs which are have potential for significant effects. The process of selecting these LCTs has been set out in Technical Appendix 5.2 to ensure transparency.
	SLAs	The assessment of effects on valued landscapes in Moray should be focussed on the Deveron Valley and Ben Rinnes Special Landscape Areas. While there may be some visibility of the proposal from the Pluscarden SLA this is unlikely to incur significant adverse effects on its character and special qualities given that it lies >30 km distance from the proposal. The SLA assessment should consider potential effects on character as well as the special qualities of these designated landscapes.	The assessment of effects on designated landscapes is presented in Technical Appendix 5.5 of the LVIA. The findings are summarised in Chapter 5: LVIA.
		The Ben Rinnes, Spey Valley and Deveron Valley SLAs lie closest to the site. In addition, the ZTV identifies impacts on the Burghead to Lossiemouth Coast, Culbin to Burghead Coast, Lossiemouth to Portgordon Coast, Pluscarden Valley, Portgordon to Cullen Coast, Spynie and Quarrelwood SLAs. There are also SLAs in the Aberdeenshire Council area which should also be taken account of, in particular the Deveron Valley.	The Landscape Designation and Classification Assessment is presented in Technical Appendix 5.5. The assessment has focussed on those landscape designation and classifications where there is considered likelihood for significant effects. Where designations have been scoped out of the assessment, a justification for this is provided.
		The Ben Rinnes SLA identifies wind farm development in adjacent upland areas as a potential threat to the sensitivity of the landscape. This could adversely affect views and the character of the secluded Glen Rinnes and Glen Livet, particularly where turbines would be seen on containing skylines.	Effects on the character and qualities of the Ben Rinnes SLA is presented in Technical Appendix 5.5: Landscape Designations and Classifications. The findings are summarised in Chapter 5:LVIA.
		Proposals, including those outwith SLAs, will only be permitted where they do not prejudice the special qualities of the designated area set out in the Moray Local Landscape Designation Review (www.moray.gov.uk/moray_standard/page_121575.html), adopt the highest standards of design and minimises adverse impacts on the landscape and visual qualities that the area is important for.	Noted.
		The Deveron Valley SLA (Moray) also identifies wind energy development sited in adjacent upland areas and visible on prominent skylines as a potential threat. Such development would affect views and the intimate scale and sense of seclusion associated with this valley.	Effects on the character and qualities of the Ben Rinnes SLA is presented in Technical Appendix 5.5: Landscape Designations and Classifications. The findings are summarised in Chapter 5:LVIA.
	Cairngorms National Park	Proposals should also take account of the special qualities of the Cairngorm National Park and developers should consult with the Park Authority and NatureScot as appropriate.	Consultation was undertaken with CNPA and Nature Scot as part of the LVIA process. The outcome of that consultation is described in this table. Effects on the special landscape qualities of the CNP are presented in Technical Appendix 5.5: Landscape Designations and Classifications. The findings are summarised in Chapter 5: LVIA.
	ZTV	A detailed ZTV should be provided in the EIAR based on an OS 1:50,000 scale map base within 15-20 km of the proposal to allow more accurate appraisal of potential visibility in the local area.	Please refer to Volume 3a: Figures

		Viewpoints (VP)	The viewpoints listed in Table 3.2 of the Scoping Report are likely to provide a good range of representative views although it is requested that the following additional viewpoints should be included:	Noted.
			Auchindoun Castle – it is appreciated that visualisations will be produced from this important feature within the Cultural Heritage section of the EIAR but as it is a popular visitor attraction we would wish to see effects on views also considered in the LVIA. The castle lies within the Ben Rinnes SLA and the assessment of effects on views should additionally inform the assessment on this valued landscape.	This viewpoint has been included - see VP 18 in Volume 3b: Visualisations.
			The A941 close to Upper Howbog near Cabrach– we would wish to see this VP included because of the importance of this approach to Moray and to allow consideration of cumulative effects with the operational Dorenell and proposed Clashindarroch extension wind farms.	This viewpoint has been included - see VP 19 in Volume 3b: Visualisations.
			Wish to see an additional night-time viewpoint from Ben Rinnes. The night-time viewpoint proposed from Viewpoint 12 should be substituted with one from Viewpoint 13 on the A920 as this is closer and it would be more useful in terms of considering cumulative effects with the application-stage Garbet Hill wind farm which will also require visible aviation lighting.	This viewpoint has been included in Volume 3b: Visualisations and as part of Technical Appendix 5.8: Lighting Assessment
		Lighting effects	Lighting effects should be assessed from each of the representative VPs and not just from the VPs selected to illustrate night-time effects.	The lighting assessment has considered the effects of turbine lighting on all VPs selected for the LVIA. Visualisations have been presented for 3 of these VPs - see Technical Appendix 5.8: Lighting Assessment
			While the character of the landscape is not readily discernible during hours of darkness, lighting can affect perceptual qualities associated with some LCTs and SLAs and it is recommended that the effect on the sense of seclusion and naturalness (due to existing relatively low lighting levels in the local area) are considered in the LVIA.	The lighting assessment has considered the effects of turbine lighting on the perceptual qualities of the landscape. See Technical Appendix 5.8: Lighting Assessment.
			Cumulative effects of lighting with the application-stage Garbet Hill wind farm should be assessed.	The lighting assessment includes consideration of the potential for cumulative lighting effects in combination with the proposed Garbet Wind Farm. See Technical Appendix 5.8: Lighting Assessment.
		Cumulative Assessment	Table 2.2 of the Scoping Report lists wind farms lying within 20km of the site which will be considered in the cumulative landscape and visual assessment. It should be noted that the Garbet Hill wind farm is now at application-stage and in addition the proposed Edintore II development is at scoping-stage. Any other application-stage proposed wind farm developments to be considered in the cumulative LVIA should be confirmed with Moray Council once an assessment cut-off date has been established.	A full list of wind farms which were included in the cumulative assessment in the LVIA is presented in the EIAR. This list was included in the Gate Check report submitted to ECU in December 2021. Moray Council were consulted on this report.
	19/02/2021	**Traffic & Transport**		
		Traffic Count Information	MC confirms that the proposed methodology for dealing with your inability to collect representative traffic count information [due to COVID-19] would be acceptable subject to sight of the historic data, including the data and Grid reference. It is also unclear where on the A941 in Dufftown the location of the count site, would this be Fife Street or Balvenie Street, or both.	The locations of the DfT traffic counters are shown in Figure 10.2. Details of the locations are provided in Section 10.3 of the EIAR, as well as in Technical Appendix 10.1, where the coordinates of the counter locations are also provided.
				Baseline traffic data covers flows on Fife Street in Dufftown, flows for the A941 to the north (covering Balvine Street and route north of Dufftown). A route survey for the transport of abnormal loads, identifying potential constraint locations, and this will is included within Technical Appendix 10.2.
			Moray Council confirmed the locations and baseline data is acceptable for the assessment.	Noted
		Abnormal loads	The A941 leading from the A920 to the site access has varying widths and in places narrow verges. Whilst abnormal load deliveries associated with the nearby Dorenell Wind Farm have used this road previously, we would seek swept path analysis for the entire length of this section of the A941 to identify the pinch points. Also if you have not already managed to do so we would advise undertaking a site visit when COVID-19 restrictions permit.	Details of pinch points along the A941 are presented in Technical Appendix 10.2. A site visit had already been undertaken in xxxx along the length of the public road which helped to inform the Route Survey Report and identify the areas of constraint.
		SPA	The application and EIAR must give consideration to any tree removal (single trees or area less than 0.1 ha) that may be required, in particular relating to the proposed access route and requirements to accommodate abnormal load deliveries. Where it has been demonstrated that it is technically unfeasible to retain trees, compensatory planning on a one-for-one basis must be provided in accordance with Policy EP7(e).	Technical Appendix 2.6 has considered tree removal and the requirement for compensatory planting.
		Socio-Economics	Detailed assessment of impact will include consideration of the extent to which the proposal contributes to renewable energy generation targets, its effects on greenhouse gas emissions and net economic impact, including socio-economic benefits such as employment.	The chapter provides details of the potential socio-economic benefits of the Proposed Development, including employment and community benefit. The net economic impact of the Proposed Development has been considered, taking account of the cumulative schemes within 10 km of the Proposed Development. Details of the Proposed Development's contribution to renewable energy targets and its effects on greenhouse gas emissions are provided in within the Planning Statement.
		Natural Heritage	The proposed site is in close proximity to the Tips of Corsemaul and Tom Mor SAC and SSSI and Craigs of Succoth SSSI. The development must ensure that is does not compromise the objectives and that there will be no adverse effect on the integrity of the designation. Comments from NatureScot will determine the acceptability of the scope of assessment and identify any information required to be submitted as part of a detailed planning application for the site.	Noted. Please refer to NatureScot consultation. OHMP which aims to protect and enhance key ornithological features is provided as Technical Appendix 7.5.
		Biodiversity	Developments must, where possible, retain, protect and enhance features of biological interest and provide for their appropriate management. Proposals must safeguard, and where physically possible extend or enhance, wildlife corridors and green/blue networks and prevent fragmentation of existing habitats	Noted. The most notable biodiversity features are to be retained and protected where possible, and appropriate management measures of these features will be detailed in the HMP.
		Historic Environment	There are a number of listed buildings, archaeological sites and scheduled monuments within the vicinity of the site. Comments from the Regional Archaeologist will determine the acceptability of the scope of assessment and identify any information required to be submitted as part of a detailed planning application for the site.	Noted.
SEPA Aberdeen	19/03/2021	**Hydrology, Hydrogeology & Geology**	ECU on behalf of SEPA: As a consequence of a significant cyber-attack affecting its contact centre, internal systems, processes and communications, SEPA have been unable to respond to the consultation on this scoping opinion request. You can find SEPA's recovery plan here - service level status. Standing advice and SEPA's planning guidance is available at http://sepa.org.uk/environment/land/planning If bespoke advice from SEPA is considered essential in advance of submission of your application, please get back in touch with ECU to discuss next steps. It should be noted however that facilitation of further engagement will very much depend on SEPA's recovery plan progress.	Noted.
	05/07/2021	**Peat**	SEPA confirmed they are content there is sufficient peat probing information to be able to inform the layout.	Noted.
			SEPA stated it is clear that the deepest areas of peat on-site have ben avoided, which is good to see. As is the use of existing tracks.	Noted.

			The current layout is based on Phase 1 peat probing and is still to be updated as a result of Phase 2 peat probing. Micrositing should be carried out prior to the application being submitted so that it's demonstrated that all relevant steps have been undertaken to minimise peat disturbance. SEPA notes that it was good to see reference to orientation of turbines as these small changes can result in quite different quantities of peat being disturbed.	Noted. Micrositing has been undertaken during design workshop 1 and 2 following phase 2 peat probing to minimise peat disturbance.
			After reviewing peat data, SEPA requested improvements at T10. The turbine needs to be moved onto shallower peat, preferably in a way that reduces the length of the related track so that overall peat disturbance is reduced.	Micrositing has been undertaken during design workshop 1 and 2 to minimise peat disturbance and T10 has been moved onto shallower peat.
			The track layout in the vicinity of T7-9-10-11 is complicated – if you could find a way to reduce length that would be good, however there is no obvious way this could be done, and it doesn't affect deep peat, so not something we would have a significant issue with.	Noted. Efforts to reduce track length have been undertaken during design workshop 1 and 2 and this has been reflected in the final design.
		Impacts on Watercourses	The track onto the site is directly adjacent to a small watercourse. Taking into consideration that the design is making use of an existing track, and that it looks like the existing track might go further up the hill than you are showing on your plans, I'm content this could be an acceptable approach (presuming there are no sensitive receptors close-by down stream). The EIA report needs to identify why working in the buffer in this area is an acceptable solution and what mitigation measures will be put in place to protect the watercourse and any downstream sensitivities. It looks like the watercourse is significantly straightened above the house (where as in line with and below the house there are meanders and some patches of trees) so there is an opportunity to try and improve the morphology of the watercourse as part of the works and I would encourage you to include that as well. It could give more space for the construction works to be carried out and result in an environmental enhancement, which would be a positive outcome.	Noted. Mitigation measures have been presented in the EIAR to ensure the protection of the watercourse and downstream receptors. The engineered channel is a land drainage asset to support agricultural use and is therefore not considered suitable for restoration.
			T10 is located so that its currently outwit the 50 m buffer – but as outlined above we would want to see it moved to reduce peat disturbance. A smaller watercourse buffer might be the best overall environmental solution and happy to discuss that further if it becomes an issue.	This turbine location has been reconfigured such that deep peat is avoided as far as possible and a 50 m watercourse buffer maintained.
			There are no significant watercourse crossings required – HES would be content with an approach whereby the EIA Report simply committed to all crossings being oversized bottomless arched culverts or traditional style bridges, with no further baseline watercourse information required.	This approach to the assessment of watercourse crossings is noted. The location of watercourse crossings is identified in Technical Appendix 9.1.
		Habitats and Wetlands	HES are content with the baseline habitat survey information and the GWDTE assessment that has been carried out to date.	Noted.
			HES agree that further quantitative assessment should be carried out to establish the contribution that overland flows at Garbet Hill have to habitat and the EIA should outline the upstream protective measures that will be put in place to ensure no negative impacts during construction.	Noted. This has been outlined in the EIAR.
			If any good quality peat forming habitat was found then the layout should also avoid impacting upon it.	Noted. The proposed design has avoided impacting upon good quality peat habitat wherever possible. Additionally, the Proposed Development has sought incorporate peat restoration as outlined in Technical Appendix 7.5: Outline Habitat Management Plan.
		Other	Borrow pits should be included on the finalised plans. Borrow pits should avoid watercourse buffers, deep peat, GWDTE buffers and local groundwater abstractions.	Noted. The borrow pit search area has been identified on the plans. This area has avoided deep peat, watercourse buffers etc.
			Forest felling and management proposals should follow SEPA guidance.	SEPA guidance will be followed, particularly in relation to forestry waste. However, no Forestry waste is anticipated.
NatureScot (NS)	19/04/2021	**Consultation**	E-mail received 19/04/2021: NatureScot confirmed they are happy with the bird survey work that has been undertaken/ is planned. No further bird survey work is required	Noted. Surveys were accordingly undertaken over a 18 month period (two breeding seasons 2019 and 2020 and one non-breeding season 2019-20), as detailed in Technical Appendix 8.1: Ornithology.
	15/01/2021	**Protected Areas - Natura 2000 sites**	It is noted that the project could have implications for two internationally important protected areas, Tips of Corsemaul and Tom Mor (SPA) and the River Spey (SAC). NatureScot state that a Habitats Regulation Appraisal (HRA) should be completed for each site. The HRA for the River Spey should focus on mitigation to avoid effects on watercourses. The HRA for the Tips of Corsemaul and Tom Mor should focus on the breeding common gull, which will be complex as this species has several pressures on it that negatively affect it's conservation status.	Information to inform a Habitats Regulation Appraisal (HRA) for the Tips of Corsemaul and Tom Mor SPA has been completed and included within Chapters 7 and 8. Information to inform HRA for the River Spey SAC is included in Section 7.11. of Chapter 7 Information to inform HRA for the Tips of Corsemaul and Tom Mor SPA is included in Section 8.11. of Chapter 8
			Tips of Corsemaul and Tom Mor SPA is designated for the breeding common gull. These birds forage from the nest in the protected area, which could lead them to feed on or near and cross the proposal site. Therefore, NatureScot state there is a potential risk of collision with turbines and displacement, specifically from barrier effects in which birds are deterred from using their normal routes to feeding grounds. It is noted that the completed ornithological survey work and that proposed for the next breeding season will provide information on which to base the EIAR assessment and inform the HRA.	Noted. Results of the bird surveys has been presented in the EIAR, which will include the results of the collision risk assessment and potential displacements effects as a result of the Proposed Development. Information to inform an HRA of the Tips of Corsemaul and Tom Mor SPA has been provided in the EIAR.
			The River Spey SAC is designated for 4 species associated with the water environment (Atlantic salmon, otter, sea lamprey and freshwater pearl mussel). NatureScot request that if public road network improvements are required in proximity to the SAC the potential risk and impact will need to be assessed and presented to inform the HRA.	Noted. It is not proposed that there would be any works within the catchment of the River Spey SAC and therefore effects and the requirement to undertake an HRA have been scoped out of the EIAR. A screening has been included within Chapter 7: Ecology.
		Landscape and Visual effects	NatureScot guidance should be followed to ensure methodologies are appropriate. NatureScot is happy to agree to a finalised list of viewpoints in due course but note that the list of viewpoints provided in the scoping report seem suitable. NatureScot request that the Cairngorms National Park boundary is displayed on all relevant figures and that the EIAR includes an assessment of the effects of the CNP's special landscape qualities that have potential to be influenced.	Noted. A full list of guidance is included in Chapter 5: LVIA. Viewpoints were agreed with NatureScot, Moray Council and Aberdeenshire Council during a consultation meeting in June 2021 (see below). Effects on the special landscape qualities of the CNP have been assessed in the LVIA as part of the designated landscape assessment (See Technical Appendix 5.5: Landscape Designations and Classifications Assessment). The CNP boundary is displayed on all relevant figures within the EIAR.
		Birds in the wider countryside	NatureScot state that the scope for this topic is appropriate and have no further comments at this stage.	Noted.

		Peatland and carbon-rich soils	It is noted that the scoping report recognises that the spatial planning tool, Carbon and Peatland 2016 Map, identifies some of the proposed site as class 1 or 2 peatland. NatureScot states that the proposed surveys should aim to establish the presence of functioning peatlands so that they can be protected. Furthermore the survey results should be used to identify areas of degraded habitat where potential exists to improve condition and restore functioning peatland. Peatland restoration would be welcomed as a component of a Habitat Management Plan.	Noted. An Outline Peat Management Plan has been prepared and included in the EIAR (Technical Appendix 2.4). Areas for peat restoration have been identified within the Outline Habitat Management Plan (technical Appendix 7.5).
		Protected species and sensitive habitats	NatureScot state that the scope for this topic is appropriate and have no further comments at this stage.	Noted. Results of surveys to be presented in the EIAR.
	19/04/2021	**Ornithology Surveys**	NatureScot had previously commented: *"The completed ornithological survey work and that proposed for next breeding season will provide information on which to base the EIAR assessment and inform the HRA."* Ramboll confirmed that the following had been completed: 2 years of breeding season ornithology surveys (March – August 2019 and March – August 2020) and 1 year of non-breeding season (Sept 2019 to February 2020), as agreed in our consultation with you on 9th April 2020. As such, ornithology surveys were accordingly completed in August 2020. NatureScot 19/04/2021: NatureScot confirmed they were satisfied with the survey work completed.	Noted.
	18/05/2021	**Compensatory Planting**	Ramboll 06/05/2021: In the absence of guidance relating to the following matter, Ramboll contacted Nature Scot (Jennifer Heatley) regarding compensatory planting advice. Advice was requested for the following: the effect of native woodland planting onsite on the Tips of Corsemaul and Tom Mor SPA and SSSI common gulls; the effect of tree planting in grassland areas onsite on the common gulls foraging habitat, as common gulls were recorded to be foraging in grassland habitats on site. The areas for the proposed tree planting are typically improved grassland used for livestock grazing. NatureScot 18/05/2021: Potentially 'converting' grazing ground to woodland reduces the extent of foraging in the wider countryside surrounding the SPA which could have an impact on the population. The relevant conservation objective would be the maintenance of the *'population of the species as a viable component of the site'* . Reduced foraging ground could lead SPA birds having to travel further in search of food, impacting breeding success and survival as a consequence. It's going to be a question of whether the woodland creation impacts potential foraging and by what extent and whether this loss would be likely to cause an influence on foraging behaviour. Depending upon the extent of new planting NatureScot advise a precautionary approach at this point and assume a likely significant effect that needs further assessment (Appropriate Assessment) to determine whether or not a loss of foraging would adversely affect the integrity of the SPA. NatureScot note that there may also be options within the compo planting scheme to create open wet areas that could support foraging gulls. NatureScot have requested the following: "*Gull pairs at the SPA have been decreasing and reasons for this remain uncertain. Would it be possible to look at land use changes over recent years? Has there been a lot of woodland creation that may have resulted in loss of foraging? The cumulative situation is probably more important to focus on here than an individual area of woodland creation."*	This has been considered within the Outline CP Plan (Technical Appendix 2.6) and Outline Habitat Management Plan (Technical Appendix 7.5).
Historic Environment Scotland (HES)	18/01/2021	**Consultation**	HES states that based on the information provided so far, there is the potential for significant adverse impacts on the setting of historic environment assets in the vicinity of the Proposed Development. It is stated that at this stage it is not yet clear whether the impacts would raise issues of national interest such that HES may object to the scheme; further information is required to enable HES to provide a more definite view of the proposed development.	Further consultation has been undertaken with Historic Environment Scotland and is presented in the EIA Chapter.
		Issues Scoped In	HES welcomes that cultural heritage effects are scoped into the assessment. HES also welcomes that the operational effects of the proposed development on the setting of cultural heritage assets as well as direct impacts from construction will be assessed.	Noted.
		Issues Scoped Out	HES is content that impacts on Inventory Gardens and Designed Landscapes will be scoped out of further assessment given the distances involved.	Noted.
		Potential Direct Impacts	HES welcomes that direct impacts and impacts on the setting of assets will be assessed and that mitigation for any significant effects will be identified. HES confirm that there are no scheduled monuments, category A listed buildings, inventory battlefields, gardens and designed landscapes or World Heritage Sites within the Proposed Development boundary.	Noted. A desk based review and a site walkover will be undertaken in relation to cultural heritage assets on-site and the results will feed into the site design. The EIAR will present the assessment of potential for direct impacts on cultural heritage assets.
		Potential impacts on the setting of assets		
		Potential impacts on the setting of assets	HES notes that 5 and 10 km study areas are being proposed for the assessment of potential impacts on the setting of assets. HES does not generally recommend the use of defined radii for the identification of impacts on setting, rather the use of an appropriately scaled ZTV as discussed above; however, in this instance HES has not identified any assets within HES' remit beyond 10 km which are likely to receive significant impacts to their setting.	Noted. The scoping reported noted that all designated heritage assets within 5 km and nationally important assets within 10 km would be identified, as it is within these distances that significant effects are mostly to arise. However the scoping report also noted that 'assets beyond 10 km which require assessment will be determined using the ZTV and in consultation with HES and ACAS. As HES has not identified any assets beyond 10 km that they consider need assessing, no further assets would be considered. HES identified assets beyond 10 km. Please refer to HES consultation.
			There are a number of nationally important historic environment assets the fall within the remit of HES in the vicinity of the development, whose settings have the potential to be significantly adversely impacted by it. An annex has been provided detailing assets which appear likely to experience impacts (these assets are listed below). In particular, HES considers that the potential impacts on the setting of Auchindoun Castle (SM 90024) from the current design are likely to be significantly adverse.	Refer to comments below.
			HES welcome that site visits will be undertaken to assets to assess the potential for impacts to their settings.	Noted.

	Auchindoun Castle, castle and fort (SM 90024)	Some large-scale development, for example, Dorenell Wind Farm and its associated overhead line (OHL) is visible from the monument to the south, but the turbines are largely screened by topography, located approximately 6 km away and the OHL is located on low-lying ground. Although HES did not object to the scheme, its extension and the OHL, HES highlighted there would be a significant impact on the setting of Auchindoun Castle and raised concerns about the potential cumulative impact arising from any further developments. HES welcome that an initial assessment has been undertaken and that further analysis and visualisations will be included in the EIAR. HES request the opportunity to review the findings of additional assessments along with provisional visualisations as early as possible, enabling them to provide more specific advise regarding impacts and any potential requirements for mitigation.	Noted. Draft wirelines were provided for further consultation. HES consultation issued on 22/07/21 included wirelines from Auchindoun Castle.
		The scale of the current ZTV is not sufficient to determine how many turbines might be visible. HES recommend that the following visualisations are required:	Subsequent HES consultation issued on 22/07/21 included an updated ZTV.
		Views from the castle looking south/south-west towards the turbines – a photomontage and wireframe should be produced from the main entrance of the castle.	A visualisation from the main entrance of the castle is included at in Volume 3a: Figures.
		Views approaching the castle from the west with turbines appearing in this view – a photomontage and wireframe should be produced from a point along the approach to the castle. The exact location of this should show the worst case scenario of turbines potentially being visible when looking towards the castle in this location.	A visualisation taken from along the approach to the castle is included in Volume 3a: Figures.
		Views towards the castle from other points in the landscape with turbines appearing in the same view - photomontages and wireframes should be produced of any potential views looking towards the castle with turbines appearing in the same view. There are a few such locations that we are currently aware of in the wider landscape, for example, a point southwest of the castle along the A941 road and Jock's Hill, but there may be others that we are not currently aware of.	A visualisation from Jock's Hill which includes the castle is included in Volume 3a: Figures. Other locations in the surrounding landscape from which the castle is visible were explored but there was no visibility of the Proposed Development from these locations. Wirelines showing the lack of visibility were provided to HES during pre-application consultation and acknowledged.
	Mortlach, Battle Stone, symbol stone (SM350)	It is unclear form the ZTV if the turbines would be visible from the monument. HES state the potential impacts for the setting of this asset should therefore be assessed further and supported by a wireframe.	There is no visibility of the Proposed Development from the asset. HES were supplied with a draft wireline to show this during pre-application consultation and acknowledged this. As such further assessment of impacts upon the setting of the asset have been scoped out.
	Balvenie Castle (SM 90028 and a Property in the Care of Scottish Ministers)	It is unclear form the ZTV if the turbines would be visible from the monument, this should be assessed further. Tress surrounding the castle screen much of the surrounding landscape however any assessment should consider seasonal changes to leaf cover and the possibility of views opening up in future from windblow, disease etc. Any assessment should consider potential impacts from the turbines on views from and towards the monument and include a wireframe to demonstrate the impacts.	Further consultation with HES on 22/07/21 included a view from this asset and confirmed extremely limited visibility. A wireline is included in Volume 3b: Figures to demonstrate this.
	Wormy Hillock (SM3278)	The assessment should consider whether views might open up in future due to any cycles of clearance or re-design. Any assessment should consider potential impacts from the turbines on views from and towards the monument and include a wireframe to demonstrate the impacts.	Consultation with HES on 22/07/21 included a view from this asset and confirms no intervisibility. As such further assessment of impacts upon the setting of the asset have been scoped out.
	Tap o'Noth, fort (SM63)	As it is unclear from the ZTV if any turbines are likely to be visible from the monument, or in views towards it, the assessment should consider the potential for impacts on the setting of this asset further. HES welcome the commitment in the scoping report to the production of visualisations to support the assessment of this asset and will be happy to provide further advice on this as the design progresses.	Consultation with HES on 22/07/21 included a view from this asset. A photomontage is included in Volume 3a: Figures.
	Category A listed buildings	HES are content with the list of assets provided within the scoping report and welcome the proposal to assess the potential impacts on the setting of these assets. HES recommend that Craig Castle (LB 2736) and Drumminor Castle (LB 2743) are included in the setting assessment.	Both of these assets lie over 10 km from the Proposed Development, they are located in woodland and adjacent to watercourses to their south (Craig Castle) and east (Druminor Castle). There are unlikely to be significant effects. Both lie outwith the ZTV and have not been carried through to the detailed setting assessment.
		Should significant impacts on the settings of any of these category A listed buildings be identified, we recommend that visualisations are produced to support the written assessment. We recommend that the potential cumulative impacts on the setting of the listed buildings is included in the assessment.	
	Potential cumulative impacts	HES recommends the potential cumulative effects of the proposed development in combination with other developments in the vicinity be assessed. This should assess the incremental impact of change when the proposed development is combined with other present and reasonably foreseeable developments.	Cumulative effects will be assessed and presented in the EIAR.
	Policy & Guidance	It is noted that the Historic Environment Policy for Scotland (HEPS 2019) was adopted on 01 May 2019 and replaced the Historic Environment Scotland Policy Statement (HESPS 2016). HEPS is a strategic policy documents for the whole of the historic environment and is underpinned by detailed policy and guidance.	Noted. Both of these documents are referenced in our standard EIA methodology.
		Make reference to SNH and HES (2018) Environmental Impact Assessment Handbook	
		It is strongly advised that the HES Managing Change Guidance Note on Setting is used to inform setting assessments. Further information on good practice in cultural heritage assessment can be found in Appendix 1 of the EIA handbook	
04/10/2021	**Auchindoun Castle, castle and fort (SM 90024)**	HES requested photomontage visualisations showing the impact of the Craig Watch wind farm on the setting of the Auchindoun Castle, castle and fort.	Ramboll provided baseline photography which relates to views from Auchindoun Castle and Tap o'Noth viewpoints. Wirelines have been previously provided for these viewpoints. Viewing photography alongside wirelines will give a greater understanding of the visibility of the turbines from these locations. The Auchindoun Castle viewpoint has been taken from the eastern entrance (Proposed Development facing) in line with HES previous emphasis that visualisations should present worst-case views. Following further consultation with HES the EIAR contains several visualisations to inform the assessment of impact upon the setting of Auchindoun Castle. These include views from the main (southern entrance), views from the eastern entrance, views on approach to the castle and views from Jock's Hill which include the castle.

	29/10/2021			As per HES previous comments and discussion on the 6th October 2021, it should be noted that the design team has undertaken an exercise to investigate further whether movement of the proposed Turbine 3 or lowering of its height would reduce its visibility from Auchindoun Castle. Given the nature of the topography around Turbine 3, a move further down slope would have to be considerable to have any appreciable reduction in the visibility of the turbine from the castle. Such a move did not prove feasible given other constraints, including residential amenity and landscape and visuals receptors. Consideration was also given to reducing Turbine 3 in height to 180 m. However, indicative wirelines demonstrated that such a reduction did not reduce the height of the turbine in this view such that there was an appreciable change. HES were provided with these comparative wirelines. As such Turbine 3 will remain in its current location and height, given any micrositing will not change the views significantly.
				Photomontages for Auchindoun Castle were provided.
	09/12/2021	Auchindoun Castle, castle and fort (SM 90024)	HES welcome pre-application discussions. The setting of Auchindoun castle is particularly sensitive to change, therefore, any views of turbines in one of its key views would potentially be adverse and should be mitigated where possible. HES would be happy to comment on your finalised draft assessment of impacts on Auchindoun Castle and have a meeting, if helpful.	Noted.
		Auchindoun Castle - View from castle entrance	The photomontage shows that four turbines would be visible, three of these would be blade tips and one (T3) would be visible at hub height at a distance of 4.05 km from the nearest turbine. It is noted that efforts have been made to mitigate the impact of these turbines - particularly T3. We note that that micrositing this turbine cannot be achieved because of other constraints. Therefore, we suggest consideration should be given to reducing the height of T3, so that it has the same or less impact on the setting of the monument as Turbines 1, 2 & 4. However, if the applicant still considers that this reduction in height would not make a substantive difference, we would recommend that this is explained and illustrated in the EIAR.	Noted. Details regarding the micrositing of T3 and how impacts have been minimised through design as far as possible will be provided within the EIAR.
		Auchindoun Castle - Views looking towards the castle	Wireframes from points along the A941 and A920, where the castle is visible show no intervisibility. HES are unclear if a photomontage will be produced from Jock's Hill given that the wireframe shows all of the 11 turbines visible. Similarly, HES are unclear if a photomontage will be produced from the approach to the castle, where we also understand there would be intervisibility. If photomontages from a LVIA perspective are going to be produced, that would also serve our interests.	Please see below correspondence from AOC to HES.
	21/12/2021	Auchindoun Castle	Consultant (AOC) response to HES.	The visualisations which will be presented within the EIAR include: - Auchindoun Castle (from eastern entrance) - Tap o'Noth - Jock's Hill (view including Auchindoun Castle) - Auchindoun Castle (on approach) - Balvenie Castle - Non-designated Craig Dorney Hill fort AOC also note your advice that the EIAR should explain and illustrate why a reduction in height of Turbine 3 would not result in a substantive difference to the impact upon the setting of Auchindoun Castle, as set out in previous correspondence. We will ensure that this is included in the submission. Wirelines showing T3 at 200 m and a reduced height of 180 m were provided to illustrate previous comments.
Internal Scottish Government Advisors				
Transport Scotland	13/01/2021	**Proposed Development**	It is noted that the development will be accessed directly via the A941. As the A941 is part of the local road network, Transport Scotland has no comment to make on the actual access point itself.	Noted.
		Assessment of Environmental Impacts	Transport Scotland is in agreement that the thresholds as indicated in the IEMA Guidelines for the Environmental Assessment of Road Traffic and Transport Assessment Guidance are to be used as a screening process for the assessment. It is noted that any impacts associated with the operational and decommissioning phases of the development are to be scoped out of the Environmental Impact Assessment Report (EIAR). We would consider this to be acceptable in this instance.	Noted. The assessment methodology has been presented in the Transport and Access chapter of the EIAR.
		Accident data	Note that traffic survey data for the A96(T) at Huntly will be obtained and used within the assessment. In addition, accident data for the A941 in the vicinity of the site access will be obtained to inform an accident review. Transport Scotland would request that an accident review of the A96(T)/ A920 junction is also provided.	This is detailed in the accident review outlined in Section 10.3: Accident Review of the EIAR and also with Technical Appendix 10.1. Figure 10.2 shows the locations of accidents recorded between January 2018 and December 2020
		Abnormal Loads Assessment	Transport Scotland note that a Framework Abnormal Load Transport Management plan is likely to be included in the forthcoming assessment however, it will require to be satisfied that the size of the turbines proposed can negotiate the selected route and that transportation will not have any detrimental effect on structures within the trunk road route path. Furthermore, a full Abnormal Loads Assessment report should be provided with the EIAR. Note that swept path analysis will be undertaken and details should be provided with regards to any required changes to street furniture or structures along the route.	The proposed AIL delivery route is presented in Technical Appendix 10.2 and shows pinch points along the route as well as proposed mitigation measures. It is expected that the design of the AIL accommodation works would form a planning condition post consent.
Marine Scotland Sciences (MSS)	19/03/2021	**Scoping Guidelines**	MSS provided generic scoping guidelines for both onshore wind farm and overhead line development https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren) which outline how fish populations can be impacted during the construction, operation and decommissioning of a wind farm development and informs developers as to what should be considered, in relation to freshwater and diadromous fish and fisheries, during the EIA process.	MSS guidance will be followed.
		Guidelines - SACs	In addition to identifying the main watercourses and waterbodies within and downstream of the proposed development area, developers should identify and consider, at this early stage, any areas of Special Areas of Conservation where fish are a qualifying feature and proposed felling operations particularly in acid sensitive areas.	SACs and proposed felling operations have been considered in the site design and are presented within Technical Appendix 16,1. Downstream receptors are included within the scope of the hydrology chapter, including Protected Areas.
		Guidelines - Fish Populations	MSS provide advice outlining what information, in relation to freshwater and diadromous fish and fisheries, should be expected in the EIAR. Use of the checklist, provided in Annex 1 of the standing advice, should ensure that the EIA contains the required information. The absence of this information could delay the process	MSS guidance will be followed.

Scottish Forestry - Grampian	21/12/2020	**UK Forestry Standard**	The removal of large areas of woodland will not be supported and all forestry proposals must be compliant with the UK Forestry Standard. The proposal requires felling, restocking and compensatory planting to facilitate and mitigate this development. Section 2.4.1 of the Scoping report states 'The forestry works would be in accordance with the UK Forestry Standard in so far as this is possible.' As stated above, this is not acceptable as all forestry works must comply fully with the UKFS. Therefore, the EIA Report must clearly state that the project will be developed and implemented in accordance with the standard.	This has been noted and standards have been followed within this Technical Appendix.
		Forestry Baseline	The land shown falls under several landownerships – this fact should be considered throughout the assessment process.	The forestry baseline and Figure 2.6.1 describes all woodlands within the Site. However only Howeshalloch Forest and Brown Hill Forest are impacted by the Proposed Development; this is reflected in the detail provided. No areas of Ancient Woodland Inventory (AWI) or Native Woodland Survey of Scotland (NWSS) are affected by the Proposed Development.
			There are also some felled areas with restocking obligations within the red line boundary, along with an area of woodland creation and a natural regeneration site on the northern boundary under the Forestry Grant Scheme (FGS).	The felled areas with restocking obligations have been treated as woodland (not bare ground) in any CP calculations, should they be required for permanent felling. The natural regeneration site has been treated the same plus any grant paid to the landowner will be reclaimed by SF. Design has sought to minimise woodland removal, where possible.
		Control of Woodland Removal Policy	There is a strong presumption in favour of protecting Scotland's woodland resources. Therefore the Applicant should demonstrate that woodland removal has been minimised and is the only viable option, by presenting the alternative options considered in the design stage of the proposal.	The Proposed Development design has sought to reduce woodland removal wherever possible. Figure 2.6.3 Wind Farm Felling Plan demonstrates the felling for the Proposed Development while Figure 2.6.4 represents the replanting within the Wind Farm Compensatory Planting as described in the Control of Woodland Removal Policy is being sought with the landowners within the Site
			As woodland removal is likely, potentially of a significant scale (affecting the entire Craig Watch block), and the duration of impact likely to be felt for decades, SF would request that there is a stand-alone forestry chapter included in the EIAR. Woodland removal should be allowed only where it would achieve significant and clearly defined additional public benefits. In appropriate cases a proposal for CP may form part of this balance.	Consultation meeting with Scottish Forestry (30/06/21) confirmed that the forestry assessment can be issued as a technical appendix and not a full EIA chapter and that all information is contained within one technical appendix. Additionally the CP plan to be conditioned.
			In the forestry chapter, all EIAR sections where woodland benefits are discussed, should be clearly referred to and summarised, as well as referenced for ease of cross checking. The scoping report has omitted the public benefit of carbon sequestration specifically from the woodland, economic returns, provision of local farm shelter and job provision – these should be included in the discussions. An estimate of all public benefits relating to forestry and forestry interests affected by the development (as listed above, as well as those stated in the Scoping report and from all other relevant chapters) should be summarised in a table in the forestry chapter, so that the full suite of forestry derived public benefits and therefore the full impact of this proposal on forestry, is clearly presented for consultees and assessment by the ECU. When assessing the potential public benefits of existing woodland, its future potentials, as well as its current attributes, must be considered. Approval for woodland removal should be conditional on the undertaking of actions to ensure full delivery of the defined additional public benefits. The applicant must clearly demonstrate how the proposed development and the compensation measures (including off-site CP) will deliver significant additional public benefits.	All forestry areas within the site boundary have been included in the report (including any woodland promotions currently in motion), the Forestry Plan and impact of access tracks have been included in the TA. Public benefits have been referred to in Technical Appendix 2.6
			Actions that the applicant intends to take (including entering into agreement with third parties) to implement the proposal must be clearly stated in the EIA Report, including the feasibility of undertaking these actions and the timescale.	The Applicant has an agreement in place with all of the landowners for on-site planting. All compensatory planting is proposed within the red line boundary and therefore no details of third parties have been provided.
			Mitigation measures and proposed CP must be fully explained in the EIA Report and agreed with Scottish Forestry. They should not be left to post-consent agreements, but conditioned within the planning approval.	This Technical Appendix presents the proposed CP Plan and that the detailed CP scheme would be covered as a condition of consent.
			SF welcomes the creation of a wind farm forest plan, however the concerns over multiple land ownership and responsibility for the delivery of the plan including mitigation should be clearly described and a legal agreement between the landowners committed to, for the life of the development.	This has been noted and will be prepared, however this sits outside of the EIAR. A single wind farm Forestry Plan will be prepared covering different ownerships and will be approved by SF in advance of construction.
			The forest plan should be provided as a technical appendix and follow the SF guidance on the production of Long Term Forest Plan (Long Term Forest Plans: Applicant's Guidance - Scottish Forestry).	Preliminary details on the Forest Plan have been provided within this Technical Appendix including a with and without wind farm felling and replanting plan. The detailed Forestry Plan will be covered as a condition of consent. The guidance on Long Term Forest Plans has been followed.
			Trees felled must be replanted on-site or compensated for (off-site planting). The replanting operations must be appropriately described. On-site replanting must always be considered first.	As noted above, The Applicant has agreements in place with landowners to allow for on-site planting arrangements within the Site boundary.
		Mitigation and Compensation Measures	The details of the proposed on-site and off-site mitigation measures must be clearly demonstrated and summarised in the Forestry chapter. This includes the location, size and timing of all of the proposed mitigation including the off-site compensatory planting (CP). With regards to off-site CP, as the applicant does not own the land, appropriate landowner agreements and access rights should be put in place and clearly stated in the Forestry chapter and mitigation schedules. The CP proposals should be assessed under the forestry EIA process and the necessary consents should be in place.	Details of proposed CP areas have been provided within the TA. Currently all CP is proposed within the Site boundary. The CP proposals would fall within the S36 application and therefore a separate screening under the Forestry EIA process is not required.
		CP Plan	The CP Plan must be approved by Scottish Forestry and should be provided in the form of a technical appendix with the results summarised in the forestry chapter.	A forestry chapter would not form part of this EIAR, as outlined above. The preliminary CP Plan has been provided within this TA and would form a condition of consent.
		Monitoring of CP	An independent, qualified and technically competent professional(s) (e.g. chartered forester) with the required experience should inspect the restocking and CP scheme at regular intervals (year 1, 5 and 10) to ensure that the trees are planted correctly, maintained to the required standard and ultimately established into woodland. This monitoring programme should be conditioned in the consent.	This has been noted and would be included within the final CP Plan, to be conditioned in consent.
Non Statutory Consultees				
Atkins				Refer to Atkins pre-scoping response.

British Horse Society	07/12/2020	**Transport, Access and Socio-economics**	Horses are important and good for people so their safety and capacity to access safe off road hacking is a key consideration in terms of their welfare and the wellbeing of their riders and those who look after them. The response referred to: the importance of off-road riding opportunities; horse and rider safety on the road network; the rights of access under the Land Reform (Scotland) Act for horse riders; and economic contributing of equestrianism to the Scottish economy (equestrianism is worth £650 million to the Scottish economy annually with the Scottish Racing industry contributing £300 million and the rest of the industry generating £355 million).	This has been considered during the design process. Details of proposed new permanent access tracks on the Site are included in Chapter 2: Development Description. It is proposed that the access tracks would be left in place following construction to provide permanent access for maintenance, repairs and eventual decommissioning of the Proposed Development. Appropriate safety measures would be formulated into a Core Path Management Plan, as detailed in Section 10.5 of this Chapter.
BT	04/01/2021	**EMI**	BT studied Proposed Development with respect to EMC and related problems to BT point-to-point microwave radio links. The conclusion is that, the Proposed Development indicated should not cause interference to BT's current and presently planned radio network.	Noted. No further action required.
Civil Aviation Authority - Airspace			Did not provide a Scoping Response to ECU.	
Crown Estate Scotland			Did not provide a Scoping Response to ECU.	
Defence Infrastructure Organisation	21/01/2021	**Air Traffic Control (ATC) Radar**	The turbines will be approx. 40 km from, detectable by, and will cause unacceptable interference to the ATC radar used by Lossiemouth.	Noted. Radar mitigation to be included within the EIAR. The effects of the Proposed Development on the Lossiemouth and Buchan radars are assessed in the EIAR. A lighting scheme comprising reduced visible lighting and infra-red lighting to meet MoD requirements will be submitted to the CAA and MoD for approval.
		Air Defence (AD) radar	The turbines will be approx. 74 km from, detectable by, and will cause unacceptable interference to the AD radar at ASACS Buchan. Close examination of the proposal has indicated that the proposed turbine(s) would have a significant and detrimental affect on AD operations. The MOD therefore has concerns with the development. The reasons for this objection include, but are not limited to: a) Several of the turbines within the development being RLOS. b) The quantity of the turbines visible to the radar at RRH Buchan would exceed our 'cumulative effect' thresholds. Research into technical mitigation solutions is currently ongoing and the developer may wish to consider investigating suitable mitigation solutions.	Noted. Radar mitigation to be included within the EIAR. The effects of the Proposed Development on the Lossiemouth and Buchan radars are assessed in the EIAR. A lighting scheme comprising reduced visible lighting and infra-red lighting to meet MoD requirements will be submitted to the CAA and MoD for approval.
		Aviation Lighting	If the developer can overcome the issues stated above, the MOD would request that the development be fitted with MOD accredited aviation safety lighting in accordance with the Civil Aviation Authority, Air Navigation Order 2016.	Noted. Radar mitigation to be included within the EIAR. The effects of the Proposed Development on the Lossiemouth and Buchan radars are assessed in the EIAR. A lighting scheme comprising reduced visible lighting and infra-red lighting to meet MoD requirements will be submitted to the CAA and MoD for approval.
Fisheries Management Scotland			Did not provide a Scoping Response to ECU.	
Deveron, Bogie & Isla Rivers Charitable Trust			Did not provide a Scoping Response to ECU.	
River Deveron DSFB	10/12/2020	**Fisheries - baseline**	The development site is drained by 5 watercourses. These are the Burn of Findouran, Linn burn, Tammie's burn, Chapel burn and Keelholes Stripes (Markie water). The Burn of Findouran is a major element of the Charach water (situated on the site perimeter) which enters the river Deveron. Construction of the Proposed Development could potentially have an impact on the biodiversity of the area, in particular the aquatic-biodiversity such as fish populations. The Charach water is an extremely important tributary and a significant element of the upper river Deveron. Previous work by the DBIT has shown that the Charach supports healthy numbers of Atlantic salmon (Salmo salar L.), trout (Salmo trutta L.) and the European eel J235:J248 (Anguilla anguilla L.). Furthermore, the Linn, Tammie's and Chapel burns drain straight into the river Deveron down a steep gradient.	Noted. Additional consultation undertaken - outlined below. Avian responded to RDevDSFB as follows in an email (17/02/21) to confirm the approach taken and address points raised. Fish habitat (and freshwater pearl mussel FWPM habitat) surveys of the watercourses that drain the Proposed Development Site were undertaken in August 2020. Surveys were carried out of the following watercourses draining the Proposed Development Site: •Burn of Succouth headwaters which discharges into the River Deveron; •Tammie's Burn headwaters which discharges into the River Deveron; •Chapel Burn headwaters which discharges into the River Deveron; •Green Burn and headwaters (incl. Green Stripe) which becomes the Burn of Findouran which discharges into the Charach Water and then River Deveron; •Linn Burn and headwaters which discharges into the River Deveron; and, •Un-named ditches discharging into the Burn Treble which discharges into the Charach Water and then River Deveron. These surveys were undertaken in full accordance with SFCC guidance (2007), and by surveyors with over 15 years' of professional experience of carrying out such surveys. Surveys found functional fish habitat to be limited in the Proposed Development Site to downstream sections of the Green Burn and the Linn Burn. No significant areas of high calibre Category 2a Salmonid spawning habitat was identified within these watercourses, with habitat suitability limited to juvenile fish. Similarly, no significant areas of spawning or nursery habitat for lamprey species was noted, and suitable habitat for European eel is patchy and likely restricted to more benign sections (e.g. Category 6 Pool), outwith the more dynamic reaches. It was noted that watercourses downstream of the Proposed Development Site may support (higher quality) fish habitat, and these stretches are hydrologically connected to the River Deveron. This has been considered in the EIAR.
		Fisheries - Construction effects: noise, peat, water quality	Potential impacts on fish populations may occur during either the construction or operational phase. During construction, the potential impacts could include noise/vibration disturbance, siltation of habitat, and hydrological changes of the peat system, pollution and the blocking or hindering of upstream access of fish.	Noted. Appropriate mitigation (including pollution control measures, maintaining appropriately sized stand-off zones between watercourses and works) and scheme design sensitive to watercourses (e.g. sensitive water crossing designs to allow the continued movement of fish and other animals) has been considered as part of the impact assessment process. Potential impacts on the watercourses has been considered within the impact assessment process. Locations of proposed watercourse crossings and principles for the design and construction of crossings are set in Technical Appendix 9.1, watercourse crossings have taken in to account SEPA best practice guidance and shall be constructed in line with relevant CAR requirements.

		Fisheries - Operational effects: Water Quality	During the operational phase, the main concerns are poor road drainage, accelerated levels of erosion and the poor maintenance of silt traps and road crossings.	Noted. Impacts on the watercourses which drain the Proposed Development Site will be fully considered in the Ecological Impact Assessment. Within the EIAR, appropriate mitigation measures have been included in relation to the management of water quality and water quantity on-site. These measures involve maintaining a 50 m stand-off buffer zone between all watercourses and Proposed Development works (and turbines and infrastructure), with the exception of watercourse crossings. An outline Construction Environmental Management Plan has been prepared for inclusion in with EIAR which includes measures to protect water quality such as the adoption of standard pollution prevention controls in line with regulations and SEPA guidance. Principles for the drainage of tracks such that rates of erosion are not increased are set out in this chapter. Detailed drainage design and methods for the entrainment of sediments would be provided in detailed design prepared by the appointed contractor.
		Baseline surveys	RDevDSFB) formally request that fish stocks are fully acknowledged during the preparation of the Environmental Impact Assessment (EIA) and further comprehensive data is collected during the additional baseline information collection. The RDevDSFB suggest that all watercourses draining the site are comprehensively surveyed (electrofishing) for juvenile fish present and a full SFCC fish habitat survey of watercourses associated with the site before any works proceed.	Noted. Early consultation with NatureScot confirmed that they were satisfied with the proposed scope of surveys (including fish and FWPM habitat surveys) to be used in the assessment for the Proposed Development. The information gathered from these surveys is appropriate for impact assessment processes. Any watercourse crossings will be designed to ensure the continued free passage of fish movements in accordance with SEPA guidance. It is considered that embedded mitigation, including mitigation by design and good practice to be implemented during construction and operational phases, will prevent significant impacts to fish populations and so they are scoped out of the EIA process (see Chapter 7). A Fish Monitoring Plan (FMP), including pre-construction surveys, is proposed as part of the embedded mitigation. Consultation with NatureScot confirmed that it was satisfied with the proposed scope of baseline surveys.
		Peat	Acknowledge and support that there will be further field surveys to identify deep areas of peat, which could ultimately help to inform the development design	Noted. Peat surveys have been undertaken and reported in the EIAR.
		Objection	RDevDSFB conclude from the potentially significant effects outlined in the scoping document that the proposed mitigation measures in terms of water quality, fish stocks and their habitats (both resident and migratory) are currently inadequate and if the development were submitted for planning consent in its current form, the RDevDSFB would therefore submit a conditional objection	Appropriate mitigation (including pollution control measures and maintaining appropriately sized stand-off between watercourses and works) and scheme design sensitive to watercourses (e.g. sensitive has been considered as part of the impact assessment process. It is considered that with appropriate, sensitive mitigation measures, the impact on watercourses draining the Proposed Development site can be minimal.
		FMP and HMP	The RDevDSFB recommend a formal Fisheries Management Plan (FMP) and Habitat Management Plan (HMP) is specified and formed for the development and that we the RDevDSFB have full input during the formation of the plans to cover all our concerns listed.	A HMP will form part of the application for the Proposed Development. It is considered (as stated above) that impacts on watercourses (and fish within) can be negated by the implementation of appropriate mitigation measures and sensitive scheme design (including any necessary water crossings allowing continued movement of fish along watercourses). Discussion of a FMP and further proposed survey for fish is included in Chapter 7, Section 7.4 and 7.5. A FMP, including provision for pre-, during- and post-construction fish monitoring would be produced pre-consent in consultation with RDDSFB and DBIRCT. HMP proposals are included in Section 7.7
	17/02/2021	**Fish Surveys**	Noted that although the they (RDevDSFB) are not a mandatory planning consultee it is uncommon for NatureScot or the developer to connect with the local Fishery Board (as the statutory salmon body) in scoping phase. Note habitats surveys completed to date were in accordance with NatureScot guidance. RDevDSFB request the length of the buffer used for surveying watercourses that may be impacted downstream of the development site.	Additional consultation has been undertaken (18/02/2021 via email): In terms of the fish habitat survey area that was used, Avian confirmed that this was the stretches flowing through the Site and the stretches adjoining the Site boundary and confirmed the provision of the Charach Water surveys held by RDevDSFB would be helpful and these have now been provided to Avian for inclusion in the EIAR.
			RDevDSFB support the suggested approach to scoping.	Noted
			The most recent and relevant juvenile fish data RDevDSFB hold is a single pass (e/f) survey of the Charach water (near to war memorial) that was completed in September 2018; a grid reference and quote for this data can be provided.	Fish surveys of the Charach Water have been purchased and information included within the EIAR.
		Further consultation re: Watercourse crossings / CEMP / HMP	RDevDSFB would welcome the opportunity to contribute to the design of any watercourse crossings and the outline CEMP and HMP as discussed. The formation of the plans and robust monitoring are key elements of the approach adopted by the RDevDSFB. This approach is used to display to stakeholders if a development has had any impact or not. The provision of an offsite experimental control is also usually central to any monitoring programme deployed. It is essential to determine what fish stocks and abundance are present before construction begins and monitor during and after construction ends for a set period. RDevDSFB are happy to discuss the RDevDSFB approach further with and NatureScot.	Noted. It is appreciated that RDevDSFB is happy to support Avion's suggested approach above for scoping, and note that RDevDSFB would be keen to input into the CEMP and HMP as and when required.
Joint Radio Company	16/12/2020	**EMI**	Copy of the pre-scoping response	Refer to pre-scoping consultation.
John Muir Trust			Did not provide a Scoping Response to ECU.	
Mountaineering Scotland			Did not provide a Scoping Response to ECU.	
NATS Safeguarding	17/12/2020	**Aviation**	The Proposed Development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal. However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application.	Noted. No further action required.
RSPB Scotland	21/01/2021	**Ornithology Surveys**	The scoping report states that a second year of ornithological VP surveys was not carried out after consultation with NatureScot. The reasons for this have not been explained in the report and the applicant needs to demonstrate why they believe that this would be acceptable in this case.	The survey effort and survey scope (including Study Areas) is detailed in Technical Appendix 8.1: Ornithology, and as agreed with NatureScot. It was agreed that 1.5 years of ornithology surveys (comprising 2 breeding seasons and 1 non-breeding season) would be appropriate given the ornithological sensitivities of the Site (breeding bird assemblage).
			The VP surveys consider a 500 m buffer from the turbine array, rather than the site boundary, which could be an issue if the turbine layout changes. In addition, the site access track and other infrastructure has not been identified but we presume that these will be within the site boundary (or the 500 m breeding bird survey buffer) and therefore the areas have been appropriately assessed.	Approach to VP survey area to be presented in the methodology section of the EIAR chapter on ornithology. Study areas have appropriately covered the developable area, and VP viewsheds have appropriately covered the proposed turbine envelope. See Technical Appendix 8.1: Ornithology.

			Please refer to post scoping consultation with NatureScot above regarding ornithological surveys.	
		Forestry Removal	The opening up of this previously closed canopy woodland could make the area more attractive for open ground species such as hen harrier and merlin. NatureScot has produced guidance to inform such proposals.	Tree planting and forestry clearance is considered in the OHMP, provided as Technical Appendix 7.5, where measures are included to deter species such as hen harrier and merlin and are in accordance with NatureScot guidance.
		Compensatory Planting	The location of any compensatory planting should avoid sensitive peatland habitats and areas favoured by open ground species including raptors and waders (such as curlew).	Tree planting considered in the OHMP has been sensitive to those habitats most used by nesting open ground nesting raptors and waders (like curlew). Peat probing has been undertaken and has informed suitable areas for compensatory planting (see Technical Appendix 7.5).
		Peat and Peat Related Policy	Scoping Layout Turbines 1 and 4 are located on areas indicated as Class 1 peatland habitat which are considered to have Significant Protection, as defined by Scottish Planning Policy, due to the presence of carbon rich soils, deep peat and peatland habitat. Policy EP16 of the Moray LDP 2020 states that large scale renewable energy proposals on areas of peat a will only be permitted where: a) The economic, social and/or environmental benefits of the proposal outweigh any potential detrimental effect on the environment (in particular with regard to the release of carbon dioxide into the atmosphere); and b) It has been clearly demonstrated that there is no viable alternative. Proposals must also demonstrate that areas of the deepest peat have been avoided. This is also reflected in policy DP9 Renewable Energy of the Moray LDP. From the information provided at this stage, it has not been demonstrated that there is no viable alternative to siting turbines on very deep peat and this must form part of the EIA, if the turbine layout proposed continues to effect class 1 peatland.	Peat probing has been undertaken and used to inform the site design. Areas of deeper peat will be avoided, where possible. Information on the evolution of the site's design has been presented in the design evolution and alternatives chapter of the EIAR. The assessment of the Proposed Development against policy has been presented in a standalone Planning Statement to be submitted alongside with the application.
			Carbon payback period for proposed wind farms should be as close to zero as possible. Design choices should be considered to minimise this payback period, such as the removal or relocation of turbines and or tracks proposed on deep peat (over 0.5 m) and Class 1 peatland.	Noted. This has been considered wherever possible.
		Cumulative Development	Agree that cumulative impacts must be fully considered, especially given the increasing number of wind farms proposed and operational within this part of East Moray and Aberdeenshire. Section 3.5.4 of the Craig Watch Scoping Report states that effects will be considered at an NHZ level but incorrectly states that 'The Proposed Development is located within the North East Coastal Plain NHZ'; it in fact straddles both the NHZ12 North East Glens and NHZ11 Cairngorms Massif. Cumulative effects should be fully and appropriately considered for hen harrier, curlew and golden eagle in particular.	Noted. Cumulative effects will be assessed on those species that warrant such assessment and will be considered at the NHZ level: NHZ12 & NHZ11.
		Confidential species information	RSPB requests that sensitive breeding information (to be provided in the EIAR in a confidential annex) is also shared with RSPB Scotland given its specialist ornithological expertise.	Confidential information can be made available to the RSPB, as well as NatureScot and the Scottish Government.
Scottish Rights of Way and Access Society (ScotWays)			Did not provide a Scoping Response to ECU.	
Scottish Water	14/12/2020	**Water services**	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.	Noted. There will be no requirement to provide water utility services for the Proposed Development.
		Drinking Water Protection Areas	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. Cairnford Bridge, Huntly supplies Craighead Water Treatment Works (WTW) and it is essential that water quality and water quantity in the area are protected. The activity is a sufficient distance from the intake that it is likely to be low risk, however care needs to be taken and mitigations must still be put in place to protect water quality.	Water quality and water quantity has been considered in the hydrology chapter of the EIAR and the Construction Environmental Management Plan (CEMP). Based on the assessment that there is likely to be a low risk identified abstraction point, principles for the protection of water resources outlined in the chapter and the implementation of a CEMP (an outline of which is provided in Technical Appendix 2.1) that would be prepared by the appointed contractor would provide suitable protection to protect water quality.
			Some of the soils in this catchment appear to be peats and peaty gleys. Peat that is in unfavourable condition or disturbed can exacerbate the release of organic material into the water environment. Water containing a high organic content can affect WTW processes and water supply. We would welcome consideration of the precautions specific to protecting drinking water in peatland areas and any opportunities for peat restoration.	A Draft Peat Management Plan has been prepared and included in the EIAR. Management of water quality and quantity has been considered in the OCEMP.
			Scottish Water has 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.	Noted. Site-specific risks and mitigation measures have been assessed within the EIAR.
		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.	Principles of Surface water management are set out in the EIAR and is not anticipated that the management of surface water runoff shall necessitate connection to public sewers.
Scottish Wildlife Trust			Did not provide a Scoping Response to ECU.	
Scottish Wild Land Group (SWLG)			Did not provide a Scoping Response to ECU.	
Visit Scotland			Did not provide a Scoping Response to ECU.	
BAA Aerodrome Safeguarding (Aberdeen)			Did not provide a Scoping Response to ECU.	
Glasgow Airport			Did not provide a Scoping Response to ECU.	
Edinburgh Airport			Did not provide a Scoping Response to ECU.	
BAA Aerodrome Safeguarding (Edinburgh)			Did not provide a Scoping Response to ECU.	
Glasgow Prestwick Airport			Did not provide a Scoping Response to ECU.	
Highland and Islands Airports			Did not provide a Scoping Response to ECU.	
Scottish Wildcat Action (SWA)			Did not provide a Scoping Response to ECU.	
Saving Wildcats Group			Did not provide a Scoping Response to ECU.	

Cairngorms National Park Authority	08/12/2020	**LVIA - Special Landscape Qualities**	The Proposed Development is located approximately 11 km outwith the National Park boundary. Policy 3.3a of the current Cairngorms National Park Partnership Plan (2017 – 2022) is therefore relevant in relation to the potential for effects on the Special Landscape Qualities and landscape character of the National Park from wind farm development outwith the National Park (available via https://cairngorms.co.uk/wp-content/uploads/2017/07/170707CNPPP17-22FINAL_SinglePage.pdf). In accordance with our working protocol with NatureScot, NatureScot provides advice on the potential effects of development outwith the National Park on the Special Landscape Qualities and landscape character of the National Park. We therefore have no other comments to make at this stage and refer you and the applicant to their advice.	Consultation has been undertaken with NatureScot with regards to effects on the National Park. The Special Qualities of the CNP which have potential to be affected by the Proposed Development and have therefore been assessed within the LVIA were agreed with NatureScot prior to assessment work commencing. Effects on these special landscape qualities are assessed in the LVIA as part of the designated landscape assessment (see Technical Appendix 5.5).
	13/05/2021		For CNPA internal report and presentation to the committee on the application, it is helpful for the site location, layout and ZTV figures to have the National Park boundary clearly marked on them and for the LVIA figures to include a combined cumulative ZTV figure showing the proposed wind farm along with existing and consented wind farms, so that members can see what the addition of the new wind farm has on the existing (operational and consented) pattern of visibility in the National Park - supported by visualisations (photomontages, wirelines) from appropriate viewpoints. Quite often the cumulative ZTV is split into different figures showing different combinations so I have to request a single cumulative ZTV, which is not ideal at that stage in the process. The figure should include this figure should only show the proposed development ZTV overlaid with a ZTV for other consented/ operational development (not including other proposed 'in planning' development). Other consultees will have other needs though, so normal LVIA guidance should be followed for in planning stage proposals and other ZTVs and visualisations.	A figure showing the requested information is included as Volume 3a: Figures.
Ofcom				See pre-scoping response
Relevant Community Councils				
Strathisla Community Council			Did not provide a Scoping Response to ECU.	
Dufftown and District Community Council			Did not provide a Scoping Response to ECU.	
Strathbogie Community Council			Did not provide a Scoping Response to ECU.	
Huntly Community Council			Did not provide a Scoping Response to ECU.	
Tap O'Noth Community Council			Did not provide a Scoping Response to ECU.	
Post-scoping				
LVIA Consultation Meeting: This meeting followed a consultation paper issued by Ramboll on 12/05/2021 to NatureScot, Moray Council, Aberdeenshire Council and Cairngorms National Park Authority (CNPA)				
NatureScot (NS), Moray Council, Aberdeenshire Council, Cairngorms National Park Authority (CNPA)	10/06/2021	Landscape Character Assessment	**The Agreed Approach**: Ramboll's intention is to use the NatureScot LCTs, supplemented with information from the 2017 MWELCS due to: •NatureScot's LCTs providing the most up to date classifications and descriptions; and •NatureScot's LCTs covering the full LVIA study area. This approach will be supplemented by info in the 2017 MWELCS. The boundaries for NatureScot's LCTs and MWELCS are largely the same. Where units are defined, these will be described also (e.g. the NatureScot LCT covering the site is Open Moorland LCT which is divided into Open Moorland with Steep Slopes and Open Moorland with Settled Glens in the 2017 MWELCS). The LCA will focus on those LCTs which are have potential for significant effects. The process of selecting these LCTs will be set out in a Technical Appendix to ensure transparency.	The assessment of effects on LCTs within the study area is presented in Technical Appendix 5.3. Findings are summarised in Chapter 5: LVIA.
		Landscape Designations and Classifications	The Scoping Report scoped out a number of SLAs due to no visibility or increased distance from the site. Further work has since refined these based on the Scoping Opinion and therefore the designations/ classifications set out in the Consultation Paper are those that would be taken forward to assessment. These are as follows:	The assessment of effects on designated and classified landscapes within the study area is presented in the LVIA.
		Cairngorms National Park	Special Landscape Qualities of the CNP were selected for assessment due to potential for being impacted by development outwith the boundary of the CNP. The Special Qualities selected are: •Grand panoramas and framed views; •Dark skies; and •Spirituality. All consultees agreed with the selection of the Special Landscape Qualities. Additional figures requested by CNPA will be included within the EIAR submission.	
		National Scenic Areas	Ramboll proposes to complete a high-level assessment of the Cairngorm Mountains National Scenic Area (NSA) due to limited ZTV coverage and therefore likely limited effects. The cumulative context will be key for the NSA therefore will be the focus of the assessment. Deeside and Lochnager NSA will not be included as there is no ZTV coverage within them. All consultees were in agreement with the approach set out above and in the Consultation Paper.	

		Special Landscape Areas	There are numerous Special Landscape Areas (SLAs) within the study area. To keep the assessment proportionate, the following have been scoped out: •SLAs with no visibility; and •SLAs which are of a distance where significant effects are considered to be unlikely (>25 km). As a result, there will be six SLAs selected for inclusion, three within Moray and three within Aberdeenshire. These are: •Ben Rinnes (Moray) •Spey Valley (Moray) •Deveron Valley (Moray and Aberdeenshire) •Benachie (Aberdeenshire) •Upper Don Valley (Aberdeenshire) All consultees were in agreement with the approach	For information. No further action.
		Viewpoint Assessment	Viewpoints selected were similar to those assessed for the neighbouring Garbet Wind Farm and Clashindarroch Extension Wind Farm and sought to cover a range of receptor types. The scoping responses broadly agreed with the selected viewpoints. Ramboll has made the minor alterations and changes requested by Moray Council in the Scoping Opinion and as such has included: •Auchindoun Castle (VP18); •A941 near Cabrach (VP19); and •Night view from Ben Rinnes (VP6). The night time viewpoint from VP12 (B9016 at Aultmore) has been amended to VP13 (A920 near Wester Bodilare) at Moray Council's request. A full suite of visualisations will be prepared in line with SNH guidance (photomontages and wirelines). Ramboll will review the viewpoints upon reaching Design Freeze and if any additions or deletions are required, the consultees will be advised of these changes. All consultees agreed with the approach set out above and in the Consultation Paper.	The Viewpoint Assessment is presented in the LVIA.
		Cumulative Approach	At this stage, the list of cumulative developments is not finalised. The list will be set and agreed with the consultees three months prior to submission of the application. Currently, the emerging pattern of development indicates that cumulative assessment is likely to be focussed on development within 15 km of the proposed development, including Garbet, Glenfiddich, Clashindarroch, Dorenell etc. The selection of cumulative developments will be analysed in the assessment to provide clarity on the rationale for selection/exclusion of cumulative developments. Ramboll proposes to include operational, approved and proposed developments, including scoping stage developments in close proximity to the proposed development (e.g. Glenfiddich). The assessment will consider in-addition and in-combination effects. All consultees agreed with the approach	The list of cumulative developments has been finalised and was provided in the Gatecheck Report appendices. This report was submitted to the ECU in December 2021, and circulated to consultees for comment.
		Lighting Assessment	The lighting assessment will be provided as a Technical Appendix to the LVIA chapter of the EIAR. This will allow for detailed examination of this topic and provision of baseline specific to the lighting assessment (as opposed to the LVIA baseline). The lighting assessment will be focussed on introduction of artificial light within a largely unlit landscape, rather than effects arising from light pollution. The lighting assessment will investigate effects on landscape character with regards to perceptions of darkness and remoteness. The assessment will consider the effects on: •Landscape Character; •Designations and classifications; •Visual amenity; •Selected VPs; and •Cumulative effects with other lit wind farm schemes. Not every viewpoint will be presented as a visualisation, but each will be considered in the lighting assessment. The wirelines will have the lit turbines annotated so that it will be possible to determine which turbines will be visible when lit. In the instance where the lighting scheme is not agreed by the point of application submission, RB proposes to assess the worst case scenario. All consultees were in agreement with the approach set out above and in the Consultation Paper.	The Lighting Assessment is presented in Technical Appendix 5.8. Representative visualisations are presented in Volume 3b: Visualisations.
		Residential Visual Amenity Assessment	A 5 km search area is proposed for the Residential Visual Amenity Assessment (RVAA). This is likely to reduce down to a 2-3 km study area to focus the assessment on properties with potential for significant effects. The three-stage assessment approach is set out in the Consultation Paper and is based on Landscape Institute guidance . The RVAA would be supported by figures, wirelines and photomontages. AG noted that if properties cannot be accessed (due to health and safety (i.e., COVID-19 restrictions) or lack of permission by residents), the assessment (including any photography) would be taken from a nearby publicly accessible location. This was agreed by all consultees. Ramboll do not propose to include properties which are derelict or abandoned (this aligns with the noise assessment as agreed with the Moray Council EHO).	The Residential Visual Amenity Assessment is presented in Technical Appendix 5.7 of the EIAR.

Defence Infrastructure Organisation, 1	14-Feb-22	**Aviation**	The turbine will be 73.9 km from and detectable by the AD radar at Buchan. Wind turbines have been shown to have detrimental effects on the operation of radar. These include the desensitisation of radar in the vicinity and an increase in false alarm rate and a reduced probability of detection Excessive turbine proliferation within a specific locality can result in an unacceptable degradation of the radar's operational integrity. The proposed development will occupy Low Flying Area 14 within which military fixed wing aircraft are permitted to fly down to 250 feet (76.2 metres) above terrain features. The development proposed will cause a potential obstruction hazard to these military low flying training activities. To address this impact, it would be necessary for the development be fitted with MOD accredited aviation safety lighting in accordance with the Civil Aviation Authority, Air Navigation Order 2016.	The effects of the Proposed Development on the Buchan radar and military low flying are assessed in the EIAR. A lighting scheme comprising reduced visible lighting and infra-red lighting to meet MoD requirements will be submitted to the CAA and MoD for approval.
Historic Environment Scotland (HES)	31-Aug-21	**Cultural Heritage**	HES expressed concern about the potential for impacts on the setting of Auchindoun Castle (Asset 115) and recommended that it should form the focus of the assessment, and that further mitigation should be incorporated into the scheme to reduce and avoid impacts where possible. Photomontage visualisations requested. HES also noted that there is some visibility of the Proposed Development from Balvenie Castle (Asset 114) and Tap o'Noth (Asset 118) and impacts on their setting should be considered as part of the assessment. HES noted there is no visibility from Mortlach Battle Stone (Asset 119) and Wormy Hillock Henge (Asset 117).	An assessment of the settings impacts of the Proposed Development on Auchindoun Castle (Asset 115), Tap o'Noth (Asset 118) and Balvenie Castle (Asset 114) have been informed by site visits, ZTV analysis and visualisations (Figures 3.12 to 3.15, 3.21 and 3.29) and are presented in Section 6.4.
	09-Dec-21	**Further information**	HES expressed concern about the potential for impacts on the setting of Auchindoun Castle with the photomontages showing four turbines to be visible from the Castle entrance. Three of the four turbines have only blade tips visible with the fourth being visible from a distance of 4.05 km. HES suggest the consideration of reducing the height of the visible turbine to reduce the visual impact upon the setting of the monument.	Ramboll responded to HES on 21-Dec-21 with a complete list of the proposed CH visualisations and with an attachment of wirelines showing Turbine 3 with a tip height of both 180 m and 200 m. AOC confirmed this would not make a material difference to the assessment and representative visualisations have been presented in Technical Appendix 6.4
SEPA	27-Aug-21	**Hydrology**	SEPA stated "as there are no significant watercourse crossings required – so we would be content with an approach whereby the EIA Report simply committed to all crossings being oversized bottomless arched culverts or traditional style bridges, with no further baseline watercourse information required"	Noted. This has been referenced in Technical Appendix 9.1
Gatecheck Consultation Responses				
Aberdeenshire Council (AC)	22-Dec-21		AC has expressed concerns with the quality of viewpoints due to viewpoint locations having physical barriers such as trees etc. Since the scoping stage Craig Dorney has been designated as a Scheduled Monument	Ramboll responded to Aberdeenshire Council on 07-Apr-22 confirming that photography for the viewpoint assessment had been captured to ensure clear and unobstructed views to the Site from the agreed viewpoint locations. Micrositing occurred in certain instances to ensure a representative view was achieved and to avoid physical obstacles such as tress, bus stops or fence posts.
HES	27-Jan-22		Further correspondence with the Applicant's archaeologist in relation to viewpoints not mentioned in report.	Following the consultation with the Applicant's archaeologists in December 2021, visualisations have been produced for Auchindoun Castle (SM 90024). Please refer to Volume 3b.
NatureScot	24-Jan-22		No further comments about Gatecheck	NatureScot's response has been noted. No further action.
SEPA	27-Jan-22		SEPA wish to be consulted further regarding the layout and wish to see detailed plans showing NVC, peat depth and watercourse buffer information overlain with the proposed temporary and permanent infrastructure. SEPA request peat plans show individual probes, colour coded and all plans to be at an appropriate scale which shows how impacts on environment have been avoided or minimised. SEPA also state they are happy to see the quantative assessment of the GWDTE on Garbet Hill and any peat quality assessments at this stage.	Ramboll responded to SEPA on 07-Apr-22. Phase 1 and 2 peat probing results, a summary of design amendments as a result of the phase 2 peat probing, figures showing the proposed design for submission, peat depths, NVC and Ramboll potential GWDTE categories and watercourses and the draft GWDTE assessment were issued to SPEA on 06-Aug-21. No further peat probing had been undertaken since this date and such no further details regarding peat were shared. In response to consultation Turbine 10 (now Turbine 7) has been microsited as far as possible out of deeper peat. Impacts on watercourses have been considered in Chapter 9: Hydrology, Hydrogeology and Geology and Technical Appendix 9.1: Watercourse Crossing Assessment.

TA 1.2: Technical Team

Technical Appendix 1.2: Technical Team

1.1 Introduction

1.1.1 In accordance with regulation 5(5) of the EIA Regulations, the EIAR has been prepared by 'competent experts'. EIAR Volume 2: Chapter 1, Table 1.2 presents the project team and Table 1.2.1 below presents the technical leads within the project team and their relevant qualifications and experience.

Table 1.2.1: Technical Team Experience

Company Name	Roles & Responsibility	Team Lead	Qualifications & Professional Memberships	Experience
Ramboll UK Limited	EIA Project Director Chapters: Shadow Flicker and Climate	Nathan Swankie	▪ MSc Environmental Pollution Control Management ▪ BSc (Hons) Zoology ▪ Chartered Environmentalist (CEnv) ▪ Member of Institute of Environmental Management and Assessment ▪ Member of Society for the Environment	Nathan is a Chartered Environmentalist with over 22 years' experience in environmental and renewable energy consultancy, specialising in EIA, environmental management and planning. He has acted as EIA Project Director for more 200 EIA commissions and has a specialist focus on onshore wind.
	Socioeconomics	Catherine MacKenzie	▪ Practitioner Member of Institute for Environmental Management and Assessment (PIEMA) ▪ MSc Environment and Development ▪ MA International Relations and German	Catherine is an experienced EIA practitioner with over 14 years' experience in EIA for the energy sector, having project managed wind farm and transmission line projects throughout Scotland, including provision of design advice, coordination of technical studies and stakeholder consultation. She has also undertaken stand-alone socio-economic and recreation/ tourism assessments as part of the EIA of a number of wind farm projects.
	Landscape and Visual Impact Assessment	Robert Bainsfair	▪ Chartered Member of the Landscape Institute (CMLI) ▪ Bachelor of Landscape Architecture (BLA) ▪ BA (Hons) Landscape Design	Robert is a Chartered Landscape Architect with over 25 years' experience in the management and preparation of seascape, landscape and visual impact assessment and allied studies including residential visual amenity assessment and assessment of lighting impacts on landscape character and visual amenity. Robert has prepared evidence and provided expert witness testimony for a number of wind farm developments throughout Scotland.
	Hydrology, Hydrogeology and Geology	Christopher Day	▪ BSc (Hons) Marine Geography ▪ MSc Flood Risk	Chris has over 13 years' experience in environmental consultancy with particular expertise in hydrological impact assessment of renewable energy and transmission infrastructure projects, flood risk assessment, hydraulic modelling, and conceptual surface water drainage design. Also experienced in the use of geographical information systems (GIS) and remote sensing, statistics, river and coastal hydraulics.
	Peat	Jeff Turner	▪ BSc (Hons) Aquatic, Marine and Freshwater Biology ▪ Chartered Environmentalist (CEnv) ▪ Member of Society for the Environment ▪ Member of Institute of Environmental Management and Assessment ▪ Member of Institute of Environmental Science	Jeff Turner is a Chartered Environmentalist and member of the Institute of Environmental Science, and Institute of Environmental Management and Assessment (CEnv, MIEnvSc, PIEMA, BSc (Hons)). Jeff has over 20 years' experience in the co-ordination and management of Environmental Impact Assessments, with over 15 years' in renewable energy developments. As part of this experience, Jeff has been responsible for managing the potential effects of wind farms on peat, and identification of suitable avoidance and mitigation measures to minimise the effects on carbon rich soils from development.
Savills	Town and Country Planning	Simon Herriot	▪ BSc (Hons) ▪ Member of the Royal Town Planning Institute (MRTPI)	Simon is a Director of Planning with Savills with 25 years' professional planning experience including 20 years' experience of planning for renewable energy developments, a significant proportion of which relates to onshore wind energy. Simon has provided planning consultancy input to numerous wind farm projects, from initial site appraisal and assessment work through to the preparation of supporting planning statements, co-ordinating EIA Reports and planning appeals, including public local inquiries.
AOC Archaeology Group	Cultural Heritage	Victoria Oleksy	▪ BA (Hons) Archaeology & History ▪ MA (Commendation) Historical Archaeology ▪ Member of Chartered Institute for Archaeologists	Victoria is Assistant Director at AOC Archaeology Group and has over 17 years' of experience. Victoria's work has included a wide range of consultancy projects throughout Scotland and England. This work has included preparing Environmental Impact Assessments, Desk-based Assessments and Conservation Management Plans, advising clients and consulting with a variety of other professionals. In the last six years Victoria has undertaken a good deal of work related to public inquiries; preparing Further Environmental Information, evidence and other documentation and giving evidence at hearing and inquiry sessions.
Avian Ecology	Ecology and Ornithology	Howard Fearn	▪ MSc Ecology and Environmental Management ▪ Full member of the Chartered Institute of Ecology and Environmental Management	Howard is director at Avian Ecology and has over 15 years' professional experience. He is a specialist in EIA and Nationally Significant Infrastructure energy projects. His project portfolio includes multiple successful large-scale wind energy developments. Howard possesses a detailed knowledge of the UK planning process and environmental legislation, and is conversant in all aspects of the EIA process. Areas of expertise include Habitats Regulations Assessment (HRA), project management, the provision or review of succinct and legally robust technical reports and impact assessments. Howard is an experienced Expert Witness and has particular expertise in ornithology, bats and renewable energy. He has also completed HRAs for Local Authorities, acting on their behalf in an expert capacity.

Table 1.2.1: Technical Team Experience

Company Name	Roles & Responsibility	Team Lead	Qualifications & Professional Memberships	Experience
Pell Frischmann	Traffic and Transport Assessment	Gordon Buchan	▪ B.Eng. (Hons) Civil & Transport Engineering ▪ MSc Transport Engineering & Planning ▪ CMILT ▪ MCIHT	Gordon is a Divisional Director in the Transport Planning team with over 24 years' experience and has provided abnormal load route survey, Transport Assessment and traffic impact review advice on over 500 wind farm sites across the UK, Ireland and Scandinavia.
TNEI Services Ltd	Noise Assessment	Jim Singleton	▪ BSc (Hons) Music Technology ▪ Full Member of the Institute of Acoustics and holds the Diploma in Acoustics and Noise Control	Jim is the Team Manager of the Environment & Engineering team at TNEI. He has over 10 years' experience undertaking environmental noise assessments for various energy generation and industrial developments.
Aviatica	Aviation and Telecommunications	Malcolm Spaven	▪ MSc Rural & Regional Resources Planning ▪ MA (Hons) Politics	Malcolm has more than 24 years' experience of aviation and telecommunications consultancy in the wind industry with in-depth technical and operational knowledge of the aviation industry. Malcolm has worked on the development of solutions through sound analysis and negotiation with stakeholders and has a wide range of competencies in supporting planning applications, from pre-planning feasibility studies to expert witness at inquiries.
McKay Forestry	Forestry	Neil McKay	▪ National Diploma in Forestry ▪ NEBOSH National Diploma in Occupational Safety and Health (2002) ▪ Institute of Chartered Foresters, Professional Member (MICFor 1994) and South Scotland Regional Chair (2007 to present)	Neil is a chartered forester based in South West Scotland, with more than 35 years' forest management and forestry and ecology related activity. Currently involved in the planning, and in some cases through to construction, of several onshore wind and hydro projects including new grid connections by the provision of EIA Forestry Chapters or technical appendices.

Technical Appendix 2: Development Description

TA 2.1: Outline Construction Environmental Management Plan – Draft Template for Planning

TA 2.2: Borrow Pit Assessment

TA 2.3: Peat Depth Survey Results

TA 2.4: Outline Peat Management Plan

TA 2.5: Peat Landslide Hazard and Risk Assessment

TA 2.6: Forestry Impact Assessment

TA 2.7: Scoping Report

TA 2.8: Scoping Opinion

TA 2.1: Outline Construction Environmental Management Plan – Draft Template for Planning

Intended for
Craig Watch Wind Farm Limited

Date
June 2022

Project Number
1620010178

CRAIG WATCH WIND FARM
OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN – DRAFT TEMPLATE FOR PLANNING

Project No. **1620010178**
Issue No. **2**
Date **28/04/2022**
Made by **Niamh Douglas/Jessica Allcock**
Checked by **Sheenagh Mann**
Approved by **Nathan Swankie**

Version Control Log

Revision	Date	Made by	Checked by	Approved by	Description
1	06/04/2022	ND	SM	NS	Issue to Client
2	28/04/2022	ND/JA	SM	NS	Second Issue to Client

CONTENTS

LIST OF TABLES

APPENDICES

1. INTRODUCTION

This document provides a framework for a Construction Environmental Management Plan (CEMP). This outline CEMP (OCEMP) has been prepared as part of the Environment Impact Assessment (EIA) process for the Proposed Development and this document forms a Technical Appendix to the Environmental Impact Assessment Report (EIAR) submitted as part of the application for consent for the Proposed Development.

A CEMP will describe the environmental management and construction methods to be employed during the construction of the Proposed Development. This draft outline document will be updated with detailed information and finalised prior to commencement of construction, in consultation with the relevant authorities and taking account of the approved plans and planning conditions.

The contractor(s) appointed to construct the Proposed Development will prepare detailed method statements which will be incorporated into the final CEMP.

The requirement to produce a CEMP will form part of the contract for the construction works for the Proposed Development. The management measures, method statements and referenced good practice guidance and legislation will form the basis of the detailed design to be prepared by the Contractor.

The CEMP will provide:

- a schedule of all construction stage mitigation measures required to address likely significant effects identified in the EIAR;
- a schedule of all additional construction and decommissioning stage good practice management measures included as part of the proposed construction work, in line with industry good practice guidance;
- a schedule of roles and responsibilities for delivering the requirements of the CEMP, including a statement of responsibility to 'stop the job/ activity' if in potential breach of a mitigation or legislation occurs;
- a method statement for monitoring, auditing, and templates for reporting and communication of environmental management performance on-site and with the Applicant, planning authority and other relevant parties;
- construction stage environmental management measures, based on both compliance with relevant regulations and relevant good practice including but not limited to:
  - The Water Environment (Controlled Activities) (Scotland) Regulations 2011[1,2] and the requirement for Construction Site Licence[3] (and Pollution Prevention Plan);
  - Forestry Commission (2017). UK Forestry Standard: The Government's approach to sustainable forestry, 4th Edition. Forestry Commission, Edinburgh[4];
  - NatureScot (2019) Good Practice During Wind Farm Construction, A joint publication by Scottish Renewables, NatureScot, SEPA, Forestry Commission Scotland and Historic Environment Scotland, Marine Scotland Science, 4th Edition[5];
  - Netregs, Guidance for Pollution Prevention (GPP)[6];
  - CIRIA Publications including CIRIA C768 (Guidance on the construction of SuDS), CIRIA C753 (The SuDS Manual)[7]; and
  - NatureScot (2015) Constructed Tracks in the Scottish Uplands, 2nd Edition[8]; and
- a template for the production of detailed and task/ site specific plans for on-site components of the construction work.

It is anticipated that specific mitigation plans and additional management measures will be required to address archaeology, ecology (protected habitats and species), surface water management and pollution prevention, watercourse crossings, waste, access arrangements, soil and peat management, construction and decommissioning nuisance (noise, dust), and community liaison.

[1] UK Government. The Water Environment (Controlled Activities) (Scotland) Regulations 2011. Online. Available at: https://www.legislation.gov.uk/ssi/2011/209/contents/made [accessed 31/03/2022]
[2] SEPA, 2022. The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended): A Practical Guide. Online. Available at: https://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf [accessed 31/03/2022]
[3] SEPA, 2021. Supporting Guidance WAT-SG-75. Sector Specific Guidance: Water Run-Off from Construction Sites. Online. Available at: https://www.sepa.org.uk/media/340359/wat-sg-75.pdf [accessed 31/03/2022]
[4] Forestry Commission, 2017. The UK Forestry Standard. Online. Available at: https://www.gov.uk/government/publications/the-uk-forestry-standard [accessed 31/03/2022]
[5] NatureScot, 2019. Guidance- Good Practice during Wind Farm Construction. Online. Available at: https://www.nature.scot/guidance-good-practice-during-wind-farm-construction [accessed 31/03/2022]
[6] NetRges, 2019. Guidance for Pollution Prevention. Online. Available at: https://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/ [accessed 31/03/2022]
[7] SUSDRAIN, URL: https://www.susdrain.org/resources/ciria-guidance.html [accessed 31/03/2022]
[8] NatureScot, 2015. Constructed tracks in the Scottish Uplands. Online. Available at: https://www.nature.scot/constructed-tracks-scottish-uplands [accessed 31/02/2022]

2. SCHEDULE OF ENVIRONMENTAL COMMITMENTS FROM ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR)

The CEMP will provide a schedule of embedded mitigation, commitments made in the EIAR and good practice measures.

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

Reference	Commitment
Landscape and Visual Amenity	• All working areas will be restricted as far as practicable to the specified areas and demarcated to keep affected areas to a minimum and prevent incursion of Site plant into non-construction locations; • Material storage/ temporary stockpiles will be retained for the shortest duration practicable and will be sited to avoid visual intrusion to neighbouring receptor locations, with particular regard to avoidance of sky-lining such features in views from neighbouring low-lying receptor locations such as the valley landscape to the south of the Site (the route of the A941), or the sensitive landscapes of Glen Rinnes, Glen Fiddich and the Deveron Valley; • Peat materials will be placed directly, wherever practicable, to avoid double handling, reduce vehicle movements, and to reduce potential drying and oxidisation of the peat. Where this is not possible the peat will be stored in accordance with the Technical Appendix 2.4: Draft Peat Management Plan; • The temporary Site compounds and temporary site excavation area (SEA) will be reinstated prior to the commencement of the operational phase of the Site to avoid the necessity of retaining restoration materials on-Site over the operational period and to avoid sustained effects on landscape fabric character and visual amenity; • The surface of lay-down areas will be reinstated to replicate the appearance of adjoining land; • Excavations for turbines foundations, laydown areas and underground cables will be reinstated prior to commencement of the operational phase of the Proposed Development; and • All track sides will be reinstated with suitable material to ensure they will blend in with the adjoining ground at the Site.
Cultural Heritage	• The post-medieval remains at Badiemulloch will be fenced off under archaeological supervision prior to the commencement of planting and no planting will take place within this area. • Impacts upon assets in Habitat Management Plan (HMP) areas will be avoided entirely through a means of fencing or demarcating the assets prior to the commencement of enhancement works/ construction. Works will be prohibited in HMP areas. In areas where damage cannot be avoided, they will be recorded prior to removal. • A walkover survey following felling but prior to commencement of construction may be required in the north eastern area of the Site (west of Craig Dorney hillfort) to identify the extent of survival of known remains and demarcating of remains if required. • A watching brief on ground-breaking works across the Site will be required during construction to determine the presence, character, extent and significance of currently unknown archaeological features or artifacts that may be disturbed. This will ensure avoidance of inadvertent damage to heritage assets and recording of remains where assets are to be removed

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

	will ensure preservation by record leading to minimal loss of information content. • During decommissioning, if ground-breaking works were required outwith the construction footprint, these may be subject to further monitoring via an Archaeological watching brief.
Ecology	• The on-site track layout has been designed to minimise environmental disturbance and land take by wherever possible avoiding areas of deeper peat. • The Proposed Development design has, as far as possible, avoided locating infrastructure within areas of higher quality blanket bog and upland heath. The majority of turbines are located within the northern portion of the Site in the area that is currently managed conifer plantation. This distance will also achieve the minimum buffer required between turbine locations and watercourses to achieve a minimum 50 m 'standoff' from bat habitat features and turbine blade tips in accordance with current good practice mitigation outlined in NatureScot guidance[9]. • Habitat enhancement will be provided through the implementation of an HMP. • Good practice mitigation will be used when restocking. A minimum buffer of 96 m between restocked trees and the turbines will be maintained to achieve a minimum 50 m 'standoff' from any bat habitat features (woodland) and turbine blade tips in accordance with current good practice mitigation outlined in NatureScot guidance[9]. • A minimum buffer of 50 m (from blade tip) from all buildings will be maintained in the event bat roost establishment may occur between baseline surveys and the commencement of operation. • Monitoring of works by the ECoW, to protect retained habitats during construction. • To prevent harm to faunal species, potentially dangerous substances or materials will be stored within construction compounds. Excavations will be either be temporarily covered at night or designed to include a ramp. • To ensure legislative compliance a Species Protection Plan (SPP) will be prepared and adopted for the construction phase, including precautionary avoidance measures. • To ensure legislative compliance pre-construction surveys for protected mammals will be undertaken to identify the presence or likely presence of species within working areas. The survey results will inform the need for further sensitive working practices, SPP and the requirements to consult with NatureScot in relation to protected species. Pre-construction surveys will cover all areas within 250 m of the Proposed Development infrastructure and associated working areas. • A Habitat Risk Assessment will be undertaken in respect of the River Spey SAC. • A Fish Monitoring Plan (FMP) will be implemented to record pre-, during and post-construction fish populations in watercourses on and adjoining the Site. • Design of new watercourse crossings will maintain hydraulic connectivity and allow the free passage of fish and other wildlife beneath. Watercourse crossings will also be of sufficient size so as not to restrict or concentrate

[9] SNH (2019a). Bats and Onshore Wind Turbines – Survey, Assessment and Mitigation. Joint Publication with NatureScot, Natural England, Natural Resources Wales, RenewableUK, Scottish Power Renewables, Ecotricity Ltd, the University of Exeter and the Bat Conservation Trust (BCT).

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

	flows downstream and to convey flows during periods of heavy rainfall (e.g., 1 in 200-year event plus climate change allowance). • Baseline and subsequent water quality monitoring. • Drainage management proposals to ensure groundwater flow and hydraulic continuity is maintained. • Implementation of best practice with regards to construction methods in close proximity to watercourses. To include diversion ditches around excavation works.
Ornithology	• No works associated with the Proposed Development will be undertaken within a minimum of 500 m of the Tips of Corsemaul and Tom Mor SPA and SSSI. • To prevent harm to birds on-site a 1 km buffer will be maintained between Kelman Hill and the proposed turbines. A 750 m buffer will be maintained between Kelman Hill and the proposed access tracks. No construction works within 750 m of identified main lek sites will be undertaken prior to 9 am between April and May. • All areas that will be within 500 m of construction activities within the Site will be surveyed in advance of works being commenced during the core breeding season (1 March to 31 August), to identify nesting locations. • Prior to commencement of works, a suitably experienced ornithologist will undertake checks for roosting harriers in suitable areas of habitat up to 600 m from active construction areas. In the event that roosting hen harriers, works will only proceed under the advice of the appointed ornithologist and following a disturbance risk assessment. • The on-site track layout has been designed to minimise ornithological disturbance and land take by maintaining at least a 500 m buffer from Annex 1/ Schedule 1 species and their nest sites. • Prior to commencement of construction activities a Construction Breeding Bird Protection Plan (CBBPP) will be agreed with relevant consultees. The CBBPP will be informed by pre-commencement breeding bird surveys. • Mitigation included as part of the CEMP to ensure legislative compliance for breeding birds as part of the CBBPP. • Where habitat clearance works coincide with the breeding bird season a pre-clearance survey will be conducted by a competent ecologist to identify any active bird nests. • Clear felled areas within 500 m of the proposed turbines will be managed in accordance with NatureScot Guidance[10] with measures including sward management. • Peat restoration to be undertaken in appropriate areas of the Site. This will be planned to extend the areas of Class I peatland within the Site, enhancing the quality of the habitat within for ornithological features. • A detailed HMP will be produced post consent for agreement by statutory consultees and stakeholders. The objectives of the plan are to restore degraded peatland areas, mitigate loss, and provide a net gain of good quality bog habitat on-site.
Hydrology, Hydrogeology and Geology	• The Contractor will be responsible for preparing a detailed CEMP, in consultation with SEPA, as well as a Pollution Prevention Plan, and

[10] SNH (2016c). Wind farm proposals on afforested sites – advice on reducing suitability for hen harrier, merlin and short-eared owl. January 2016.

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

	implementing these during construction in order to maintain surface water quality. • A site construction licence as required under the Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended (CAR) will be obtained from SEPA prior to any construction works being undertaken. The licence will detail the pollution prevention measures to be used on-site, the results of further site investigation and detailed site drainage and pollution control design that will be undertaken prior to construction. The construction site licence will be regulated by SEPA. • A full SuDS solution will be designed prior to construction and details of SuDS will be included in the final CEMP. SuDS will provide management of surface water runoff rates and will provide a treatment train that will mitigate potential adverse impacts on the hydrology of the Site during the construction phase. • Sediment capture methods to be implemented at the Site will be detailed in the final CEMP to mitigate any increase in sediment load as a result of construction activity, through measures which could include settlement ponds, silt fences, separation of greenfield and track runoff, cross drains at regular intervals and pipe drains and dam checks shall ensure sediment loads are fully entrained. These will be installed (following best practice guidance) prior to the commencement of construction and will remain in situ until the construction phase is completed and permanent drainage measures that shall serve the track are operational. • Petrol interceptors and spill kits will be utilised where chemical spillage is a possibility. • All construction and decommissioning work will be executed in accordance with the relevant good practice guidance on pollution prevention and mitigation; including SEPAs pollution prevention guidelines (PPGs) and guidance for pollution prevention (GPPs). • Unless otherwise agreed by the ECoW, the storage of potentially contaminative materials (oils, cements/ grouts) will be at least 50 m away from watercourses and drainage paths. • Any requirement for water quality monitoring of watercourses within and downstream of the Proposed Development will be agreed with SEPA and will be detailed in the final CEMP. • During the construction phase, surface water flow pathways will be maintained across the footprint of the Site to maintain the hydrological condition of Private Water Supplies (if confirmed to be present) and sensitive habitats, which are sustained by rainfall and surface water runoff across the Site. For example, where required, interceptor ditches will divert clean runoff around proposed excavation or soil disturbance works, and culverts or diversion drains beneath new tracks will be used to maintain distribution of flows to habitats. • Where watercourse crossings are being installed or upgraded, SEPA good practice construction measures, and CIRIA guidance will be adopted and PPGs adhered to. Regulatory control will be adhered to in accordance with the CAR. • A detailed Borrow Pit Assessment will be prepared prior to commencement including details of the proposed drainage layout at each location and details of methods by which stockpiled materials will be separated from surface runoff as far as practicably possible. • Excavated peat should be excavated as turves, including the acrotelm (surface vegetation) and a layer of adjoining catotelm (more humified peat)

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

	typically up to 500 mm thick in total, or as blocks of catotelm; the acrotelm should not be separated from its underlying peat; • The turves should be as large as possible to minimise desiccation during storage, though the practicalities of handling should be considered; • Contamination of excavated peat with substrate materials to be avoided at all times; and • Consider timing of excavation activities to avoid very wet weather and multiple handling to minimise the likelihood of excavated peat losing structural integrity. • If possible, peat should be extracted in intact full depth acrotelm layers from the top surface of the peat deposit. This technique will maintain connectivity between the surface vegetation and the partially decomposed upper layers of the catotelm; • The following good practice applies to the storage of peaty soils/ peat: • Stripped materials should be carefully separated to keep peat and other soils apart; • To minimised handling and haulage distances, excavated material should be stored local to the site of excavation or end point of restoration; • Peat turves should be stored in wet conditions or irrigated in order to prevent desiccation (once dried, peat will not rewet); • Stockpiling of peat should be in large volumes to minimise exposure to wind and sun (and desiccation), but with due consideration for slope stability, but should not exceed 1 m in height to maintain stability of stockpile; • Stockpiles should be isolated from watercourses or drains with appropriate bunding to minimise pollution risks; • Excavated peat and topsoil stored separately, should be stored to a maximum of 1 m thickness; • Stores of non-turf (catotelm) peat should be bladed off to reduce the surface area and desiccation of the stored peat; and • Peat storage areas should be monitored during periods of very wet weather, or during snowmelt, to identify early signs of peat instability. • Any peaty soils/ peat to be removed during construction will require a temporary storage area near to the construction works/ area of re-use. Where peat cannot be transferred immediately to an appropriate restoration area, short term storage will be required. In this case, the following good practice applies: • Peat should be stored around the turbine perimeter at sufficient distance from the cut face to prevent overburden induced failure; • Local gullies, diffuse drainage lines (or very wet ground) and locally steep slopes should be avoided for peat storage; and • Drying of stored peat should be avoided by irrigation (although this is unlikely to be significant for peat materials stored less than 2 months). • For crane pads, borrow pits and compounds (with longer term peat storage requirements), the following good practice applies: • Peat generated from crane pad locations should be transported directly to its allocated restoration location, to minimise the volume being stockpiled with the possibility of drying out; • Stores of catotelmic peat should be bladed off to reduce their surface area and minimise desiccation;

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

	• Where transport cannot be undertaken immediately, stored peat should be irrigated to limit drying and stored on a geotextile mat to promote stability; • Monitoring of large areas of peat storage during wet weather or snowmelt should be undertaken to identify any early signs of peat instability; • Movement of turves should be kept to a minimum once excavated, and therefore it is preferable to transport peat planned for translocation and reinstatement to its destination at the time of excavation; and • If heavy goods vehicle (HGVs)/ dump trucks that are used for transporting non-peat material are also to be used for peat materials, measures should be taken to minimise cross-contamination of peat soils with other materials. • Following refinement of the Site peat model, a detailed storage and handling plan should be provided as part of the detailed Peat Management Plan (PMP); • During peat restoration, the following best practice should be followed: • Carefully evaluate potential restoration sites, such as borrow pits, and currently forested areas to be maintained as permanent open ground (where peat turves may be used for extensive ditch blocking) for their suitability, and agree that these sites are appropriate with the ECoW, landowners and relevant consultees; • Undertake restoration and revegetation or reseeding work as soon as possible; • Where required, consider exclusion of livestock from areas of the Site undergoing restoration, to minimise impacts on revegetation; and • As far as reasonably practicable, restoration should be carried out concurrently with construction rather than at its conclusion. • To minimise the risk of peat instability, an appropriately experienced and qualified engineering geologist/ geotechnical engineer should be appointed during the construction phase, to provide advice during the setting out, micrositing and construction phases of the works. The appointed engineer should develop and maintain a Geotechnical Risk Register; • The "undercutting" of peat slopes should be minimised during construction. Where this cannot be avoided, a more detailed assessment of the area of concern by the geotechnical engineer will be required; • Floating access track should be used across areas of deep peat (>1.0 m) to reduce the risk of peat instability. The track design will have due regard to key principles set out in the joint NatureScot (formerly SNH) and Forestry Commission Scotland (FCS) guide to floating roads on peat; • Health and Safety awareness of the peat environment at the Proposed Development for construction staff should be incorporated into the Site induction. Include peat slide risk assessment information (e.g. peat instability indicators, best practice and emergency procedures) in toolbox talks with relevant operatives e.g. plant drivers; • Introduce a 'Peat Hazard Emergency Plan' to provide instructions for Site staff in the event of a peat slide or discovery of peat instability indicators; and • For sections of track that require track side cuttings into peat, suitable support measures will need to be designed to maintain the stability of the adjacent peat terrain.
Traffic and Transport	• During the construction period, a project website, blog or Twitter feed will be regularly updated to provide the latest information relating to traffic

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

	movements associated with vehicles accessing the Site. This will be agreed with the local roads authority; • The following measures will be implemented during the construction phase through the Construction Traffic Management Plan (CTMP): - Where possible the detailed design process will minimise the volume of material to be imported to site to help reduce HGV numbers; - A site worker transport and travel arrangement plan, including transport modes to and from the worksite (including pick up and drop off times); - A Traffic Management Plan; - All materials delivery lorries (dry materials) should be sheeted to reduce dust and stop spillage on public roads; - Specific training and disciplinary measures should be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway; - Wheel cleaning facilities may be established at or near the Site entrance, depending on the views of Moray Council (MC) and Aberdeenshire Council (AC) and SEPA, having regard to the need to protect the River Spey; - Unless otherwise agreed with the planning authority, normal site working hours will be between 0700 and 1900 (Monday to Friday) and 0700 and 1300 (Saturday), some activities may take place outside these hours such as component delivery, turbine erection and in exceptional circumstances e.g. to allow the completion of a concrete pour; - Appropriate traffic management measures will be put in place to avoid conflict with general traffic, subject to the agreement of the roads authority. Typical measures will include HGV turning and crossing signs and banksman where necessary; - Provide construction updates on the project website and or a newsletter to be distributed to residents within an agreed distance of the Site; and - Adoption of a voluntary speed limit of 20 miles per hour (mph) for all construction vehicles through local settlements. • All drivers will be required to attend an induction to include: - A tool box talk safety briefing; - The need for appropriate care and speed control; - A briefing on driver speed reduction agreements (to slow site traffic at sensitive locations through the villages); and - Identification of the required access routes and the controls to ensure no departure from these routes. • Video footage of the pre-construction phase condition of the abnormal loads access route and the construction vehicles route will be recorded to provide a baseline of the condition of the road prior to any construction work commencing. This baseline will inform any change in the road condition during the construction phase. Any necessary repairs will be coordinated with the Council's roads team; • Damage to road infrastructure caused directly by construction traffic will be made good and street furniture that is removed on a temporary basis will be fully reinstated;

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

	• There will be a regular road review and any debris and mud will be removed from the carriageway using an on-site road sweeper to ensure road safety for all road users; and • Before the abnormal indivisible loads (AILs) traverse the route, the following tasks will be undertaken to ensure load and road user safety: - Ensure any vegetation which may foul the loads is trimmed back to allow passage; - Confirm there are no roadworks or closures that could affect the passage of the loads; and - Check no new or diverted underground services on the proposed route are at risk from the abnormal loads. - Confirm the police are satisfied with the proposed movement strategy. - All abnormal load deliveries will be undertaken at appropriate times (to be discussed and agreed with the relevant roads authorities and police) with the aim to minimise the effect on the local road network. It is likely that the abnormal load convoys will travel in the early morning periods before peak times while general construction traffic will generally avoid the morning and evening peak periods; - Advance warning signs will be installed on the approaches to the affected road network. Information signage could be installed to help improve driver information and allow other road users to consider alternative routes or times for their journey (where such options exist); - The location and numbers of signs will be agreed post consent and will form part of the wider traffic management proposals for the Proposed Development; - Information on the turbine convoys will be provided to local media outlets such as local papers and local radio to help assist the public; - Information will relate to expected vehicle movements from the A96, along the AIL delivery route along the A920 and A941 to the Site access junction. This will assist residents becoming aware of the convoy movements and may help reduce any potential conflicts; - The Applicant will also ensure information was distributed through its communication team via the project website, local newsletters and social media. A police escort will be required to facilitate the delivery of the predicted loads. The police escort will be further supplemented by a civilian pilot car to assist with the escort duty. It is proposed that an advance escort will warn oncoming vehicles ahead of the convoy, with one escort staying with the convoy at all times. The escorts and convoy will remain in radio contact at all times where possible; - The abnormal loads convoys will be no more than three AIL long, or as advised by the police, to permit safe transit along the delivery route and to allow limited overtaking opportunities for following traffic where it is safe to do so; and - The times in which the convoys will travel will need to be agreed with Police Scotland who have sole discretion on when loads can be moved. • An Abnormal Load Transport Management Plan will be prepared to cater for all movements to and from the Site. This will include: - Procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking;

Table 2.1.1: Schedule of Embedded Mitigation and Good Practice Measures

	- A protocol with other wind farm developers to manage possible crossover of abnormal load movements. This is not likely to be a major issue as there are limited Police Scotland escort resources and as such it is likely to be impossible for two sets of loads to move along the A920 or the A914 at the same time; - A diary of proposed delivery movements to liaise with the communities to avoid key dates such as popular local events etc; - A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic; and - Proposals to establish a Construction Liaison Committee to ensure the smooth management of the project/ public interface with the applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee will form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising. • The proposed borrow pit on-site will be able to provide sufficient material for the construction of the majority of the access roads and turbine hardstands. The assessment described in this chapter assumes that they can only provide 50% of the required material to provide a robust assessment for Moray Council (MC) and Aberdeenshire Council to consider. • It is expected that the borrow pit will provide 100% which will reduce the potential impact on the road network from that assessed in this study • Along the route, consideration has been given to pedestrians, cyclists and horse riders alike due to potential interactions between construction traffic and users of the core path. These measures will be formulated into a Core Path Management Plan. • The principal contractor will ensure that speed limits are always adhered to by their drivers and associated subcontractors. This is particularly important within close proximity to the core path and at crossing points. Advisory speed limit signage will also be installed on approaches to areas where core path users may interact with construction traffic. • Signage will be installed on the Site exit that makes drivers aware of local speed limits and reminding drivers of the potential presence of pedestrians, cyclists and horse riders in the area. This will also be emphasised in the weekly tool box talks.
Noise	• Good site practices will be implemented to minimise the likely effects. Section 8 of BS5228-1:2009+A1:2014 recommends a number of simple control measures as summarised below that will be employed on-site: - Keep local residents informed of the proposed working schedule, where appropriate, including the times and duration of any abnormally noisy activity that may cause concern; - Ensure that any extraordinary site work continuing throughout 24 hours of a day (for example, crane operations lifting components onto the tower) will be programmed, when appropriate, so that haulage vehicles will not arrive at or leave the site between 07:00 and 18:00, with the exception of abnormal loads that will be scheduled to avoid significant traffic flows; - Ensure all vehicles and mechanical plant will be fitted with effective exhaust silencers and be subject to programmed maintenance; - Select inherently quiet plant where appropriate - all major compressors will be 'sound reduced' models fitted with properly lined and sealed acoustic covers, which will be kept closed whenever the machines are in use; - Ensure all ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers; - Instruct that the machines will be shut down between work periods or throttled down to a minimum; - Regularly maintain all equipment used on-site, including maintenance related to noise emissions; - Vehicles will be loaded carefully to ensure minimal drop heights so as to minimise noise during this operation; and - Ensure all ancillary plant such as generators and pumps will be positioned so as to cause minimum noise disturbance and if necessary, temporary acoustic screens or enclosures should be provided. • Should there be a requirement for blasting, a series of tests will be undertaken by the Appointed Contractor in accordance with guidance outlined in BS5228-2:2009+A1:2014[11].
Aviation and Telecommunications	Aviation stakeholders will be notified of the location of temporary and permanent en-route obstacles.
Socioeconomics	• No mitigation measures have been identified.
Climate	• No embedded mitigation measures have been identified.
Forestry	• A Craig Watch Wind Farm Restocking plan will be followed and is based upon best practices and sustainable forestry design standards. • A compensatory planting plan will be prepared to meet the current UK Forestry Standards and presented for approval by Scottish Forestry. This will contain the areas, species choice, cultivation and aftercare proposals including deer management. • Tree crop clearance will be carried out by competent forestry specialists. • During the Site cultivation, any drains to manage water runoff will be installed to meet the Forest and Water guidelines. • Crop protection against damage through large pine weevil, (*Hylobius abietis*) infestation will be carried out following best practices.

The CEMP will also maintain a schedule of commitments required by specific planning conditions.

Table 2.1.2: Planning Condition Commitments

Reference	Commitment
TBC	TBC following planning consent

[11] British Standard BS5228-2: 2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites' – Part 2: Vibration

3. COMMUNICATION PROTOCOL

3.1 Roles and Responsibilities

The CEMP will confirm the roles, responsibilities and communication routes for environmental management during the works. This plan will make reference to or incorporate communication protocols for use during an environmental emergency or incident.

An appropriately qualified Environmental/ Ecological Clerk of Works (ECoW)/ Site Environment Manager will be appointed with the responsibility of monitoring compliance the CEMP. The ECoW will be supported by an appropriately experienced and qualified engineering geologist/ geotechnical engineer for the supervision of work in any areas identified as medium to high risk of peat instability.

An appropriately qualified archaeological clerk of works would be appointed to supervise fencing off of archaeological remains and would be responsible for undertaking an archaeological watching brief on ground-breaking works across the site as identified in the CEMP.

3.2 Recording and Reporting

The CEMP will set out the requirements for recording and reporting all aspects of environmental management, for example:

- minutes and attendance record of start-up meeting (on-site meeting prior to commencement of construction works);
- an environmental risk register;
- minutes of weekly meetings covering environmental (ecology, archaeology, hydrology) issues (meetings may be combined with regular construction progress meetings);
- a communication plan;
- records of toolbox talks;
- dust/ noise monitoring records;
- site waste and materials records;
- water quality monitoring records (if required); and
- licensing and consents.

The CEMP would be agreed with AC, MC and relevant statutory consultees before adoption.

3.3 Environmental Audits

The CEMP will set out the programme of environmental audits, including audits of sub-contractors to be undertaken by the contractor, on a quarterly basis (as a minimum) and provides an audit report within two weeks of the audit being undertaken.

The contractor will develop a template for completing and reporting audits for the agreement of the employer prior to the commencement of site works.

3.4 Community Liaison

During the construction period, a community liaison group will be set up to disseminate information and take feedback and the project website will be regularly updated to provide the latest information relating to traffic movements associated with vehicles accessing the Site. This will be agreed with MC and AC as the Local Roads Authorities.

4. TYPICAL CONSTRUCTION STAGE ENVIRONMENTAL MANAGEMENT MEASURES AND PLANS

This section provides sub-headings for typical detail to be provided in the outline CEMP.

4.1 Contractor Requirements

A Principal Contractor will be appointed and they will ensure that all employees, sub-contractors, suppliers and other visitors to the site are made aware of the content of the CEMP and its applicability to them. Accordingly, environmental specific induction training will be prepared and presented to all categories of personnel working on and visiting the site.

As a minimum, the following information will be provided to all inductees:

- identification of specific environmental risks associated with the work to be undertaken on-site by the inductee;
- summary of the main environmental aspects of concern at the site as identified in the CEMP; and
- Environmental Incident and Emergency Response Procedures (including specific Environmental Communication Plan requirements).

A conveniently sized copy of an Environmental Risk Map or equivalent will be provided to all inductees showing all of the sensitive areas, exclusion zones and designated washout areas. The map will be updated and reissued as required. Any updates to the map will be communicated to all inductees through a tool box talk given by specialist environmental personnel. Regular tool box talks will be provided during construction to provide ongoing reinforcement and awareness of environmental issues.

4.2 Temporary Lighting

Temporary lighting will be required at the temporary construction compounds for security purposes and to ensure that a safe working environment is provided to construction staff. In addition, temporary lighting could be required to ensure safe working conditions at infrastructure locations during construction.

All temporary lighting installations will be downwards pointing passive infra-red (PIR) activated lighting and all lights will be switched off during daylight hours and outwith working hours.

4.3 Community Communication Plan

Specify proposed communication protocols and project team contacts.

4.4 Archaeological Management Plan

Specify requirement for mitigation and/ or good practices measures agreed with the planning authority and in line with measures specified in the EIAR.

4.5 Wind Farm Restocking Plan

A wind farm felling plan would be developed in accordance with best practice measures and sustainable forest design.

4.6 Agricultural Management Plan

An agricultural management plan would be developed to outline how livestock would be managed on-site. The plan would detail how livestock would be managed through agricultural infrastructure

e.g. fences and gates, how these would be maintained, and replaced, if required, during construction.

4.7 Ecological Management Plan

Provide an Ecological Management Plan (EMP), to include all measures required to protect ecology at the Site and ensure compliance with relevant nature conservation and wildlife protection legislation.

4.8 Construction Breeding Bird Protection Plan

A construction breeding bird protection plan would be provided to include all measures to protect breeding birds.

4.9 Surface, Groundwater and Water Quality Monitoring Management Plan

Specify and provide design for drainage management measures, to incorporate sustainable drainage systems (SuDS) to attenuate the volume and rate of runoff and maintain water quality.

Specify requirement for monitoring (including visual inspection and sampling) of all drainage measures (SuDS) employed during the construction phase to assess and manage the performance of the drainage system and ensure they are maintained appropriately and remain effective. The performance of the drainage measures will be monitored and recorded.

Specify the monitoring of surface watercourses to be undertaken during the construction phase, if required.

The contractor will obtain the appropriate CAR licence from SEPA prior to the commencement of construction. The Contactor will be responsible for implementing any requirements of the Site Licence and associated Pollution Prevention Plan (PPP), along with PPG/ GPPs and GBRS relevant to the protection of water quality.

4.10 Dust Management Plan

Detail dust management controls and protocols for implementation (e.g. in the event of dry weather).

4.11 Waste Management Plan

Provide details of Site waste management, identifying all waste streams and responsibilities of the contractor.

4.12 Soil and Peat Management Plan

Provide an updated Peat Management Plan (PMP), to be produced post consent using data acquired through the Site investigation campaign. Specify measures to maintain soil structure and function during temporary storage and reinstatement work.

4.13 Peat Instability Risk Assessment Management Plan

Provide a geotechnical risk register and management plan to manage risks associated with construction in close proximity to areas identified as having peat instability risk.

4.14 Noise Management Plan

Specify hours of work and an outline of proposed restrictions, noise control measures required during construction work.

4.15 Construction Traffic Management Plan

Specify traffic management plan measures agreed with the planning authority.

5. CONSTRUCTION METHOD STATEMENTS

This section provides sub-headings for typical detail to be provided in the outline CEMP.

5.1 Construction Programme

The estimated construction period of the Proposed Development is approximately 18 months.

5.2 Working Hours

The normal working hours would be as follows:

- Monday to Friday 0700-1900;
- Saturday 0700-1300; and
- No working on Sundays or public holidays without prior written approval from AC and MC.

No audible works, with the exception of turbine delivery, the completion of turbine erection or emergency work, will take place outside these hours, and any such out-of-hours works would be subject to prior agreement with AC and MC. The requirement for out-of-hours work could arise, for example, from delivery and unloading of abnormal loads or health and safety requirements, or to ensure optimal use is made of fair weather windows for the erection of turbine blades and the erection and dismantling of cranes.

5.3 Temporary Construction Compounds, Lighting, Staging Area and Site Fencing

Specify layout in temporary construction compounds.

5.4 Public Access Roads

Specify the improvements proposed along the Site access route and detail in a Traffic Management Plan (TMP) which will also set out any Agreements or Licences required with the relevant statutory authorities and the delivery of abnormal indivisible loads (AIL).

5.5 Site Entrance

Specify requirement for inspection of Site entrance roads and detail requirement/ protocol for providing a road sweeper to remove any mud or debris transferred onto the roads from Site activities if required. Additionally, the Site entrance provides security to the Site.

5.6 Site Access Tracks

Specify construction details for Site tracks, including installation of track drainage, and the locations and use of cut and floating track design.

Specify areas requiring sub-grade drainage measures to maintain groundwater connectivity (based on detailed site investigation at pre-construction phase).

5.7 Watercourse Crossings

Specify design of watercourse crossings in accordance with the Water Environment (Controlled Activities) (Scotland) Regulations 2011 as amended (CAR). Further detail is contained within Table 2.1.1.

Specifications will comply with:

- Flood Estimation Handbook[12] (Statistical Analysis) and ReFH2 - used where appropriate used to determine the design flow;
- CIRIA Culvert design and operation guide (C689);
- Scottish Executive (2002) River Crossings and Migratory Fish: Design Guidance (where appropriate); and
- Other SEPA guidance where appropriate.

Construction Methodology

Specify watercourse crossing construction methodology, including detailed measures to prevent pollution.

5.8 Crane Hardstandings

Specify construction design details for crane hardstandings and construction methods for their installation.

5.9 Turbine Foundations

Specify foundation design (based on site investigation) and construction methods proposed.

5.10 Turbine and Turbine Transformer Erection

Specify construction details for turbine and turbine transformer erection.

5.11 Site Electrical Works

Specify construction details for Site electrical works.

5.12 Cable Trench Design Philosophy

Specify route and design of on-site cables, including methods of installation, watercourse crossing and measures to ensure that cable trenches do not provide a preferential pathway for dewatering peat forming habitats.

5.13 Substation, Control Building, Battery Energy Storage System and Compound

Specify construction details for substation control building, battery energy storage system and compound.

5.14 Permanent Meteorological Masts

Specify construction details for the permanent meteorological mast.

5.15 Grid Connection

Specify interface with distribution network operator for providing grid connection.

[12] UK Centre for Ecology and Hydrology: Flood Estimation Handbook. Online. Available at: https://www.ceh.ac.uk/services/flood-estimation-handbook [last accessed 31/03/2022]

6. DECOMMISSIONING AND RESTORATION PLAN

The expected operational life of the Proposed Development will be 33 years from the date of final commissioning. Towards the end of this period a decision will be made as to whether to refurbish, remove or replace the turbines. If refurbishment or replacement were to be chosen, then relevant applications will be made.

The CEMP will be updated on completion of the construction work for handover to the Site owner. The CEMP will provide details of all relevant 'as-built' plans/ drawings and technical details which will inform the decommissioning process.

The CEMP will provide a schedule of bill of quantities to summarise the components and constituent materials which form the Proposed Development, and the likely options or methodology envisaged for the decommissioning process.

If a decision was taken to decommission the Proposed Development this will require the removal of all the turbine components, transformers, the substation and associated buildings. In the event of decommissioning, a Decommissioning and Restoration Plan (DRP) will be prepared and will be submitted for approval by the Councils, NatureScot and SEPA no less than 12 months prior to the final decommissioning of the Proposed Development. The detailed DRP will be implemented within 18 months of final decommissioning of the Site, unless otherwise agreed with the Council.

The DRP will set out methods for the following:

- site track and hardstand areas: new site tracks and areas of hardstanding constructed during as part of the Proposed Development will be reinstated, unless otherwise agreed with the landowner and/ or Council;
- turbines: the decommissioning of the wind turbines will follow the reverse of the erection process involving similar lifting plant and equipment;
- turbine foundations: it is widely accepted that there is no appreciable effect on the local environment from buried reinforced concrete structures left in situ due to the inert state of concrete;
- cabling works: cables will remain in situ to avoid any effect to the local environment by their removal; and
- substation compounds: will be decommissioned by disconnecting and dismantling all the surface plant. Solid structures such as the building and equipment plinths will be demolished and the foundation will be removed to an agreed depth below ground level. Ducting and cabling that is within the agreed depth to be cleared will be removed. The fence surrounding the compound will be removed and the area covered with topsoil and reseeded, as required.

APPENDIX 1
FIGURES

Consented Planning Drawings (to be updated with 'as-built' drawings on completion)

APPENDIX 2
DRAINAGE DESIGN CONTENTS

It is anticipated that the Drainage Design for the Proposed Development would comprise the following:

1. General Philosophy
2. Hydraulic/ Water Quality Design Criteria
3. Working in the Vicinity of Watercourses
4. Working in the vicinity of Groundwater Dependent Terrestrial Ecosystems (GWDTEs)
5. Management of Silt and Water pollution

5.1. Detailed Drainage Design

5.1.1. Trackside Drainage

5.1.2. Sediment Ponds/ Lagoons

5.1.3. Watercourse

5.1.4. Turbine Foundations

5.1.5. Excavated Soil Management

5.1.6. Concrete Washout Area

5.2. Maintaining Site Hydrology

5.3. Maintenance/ Monitoring of SuDS performance

5.4. Decommissioning of SuDS

TA 2.2: Borrow Pit Assessment

Technical Appendix 2.2: Borrow Pit Assessment

1.1 Introduction

1.1.1 To minimise the volume of imported aggregate transported to Site and any consequent environmental impacts, a borrow pit located within the Site is proposed (subject to further geotechnical evaluation) to source the necessary aggregate required for track construction, turbine bases, crane pads, compounds and hardstanding areas. This report provides details of the proposed on-site borrow pit for use during the construction of the Proposed Development. One potential borrow pit location has been identified. The Proposed Development is described in Chapter 2: Proposed Development and the proposed borrow pit search area is shown on Figure 2.2.1. Section 1.4 of this report provides specific information about the borrow pit search area and restoration details.

Aims of this Report

1.1.2 This report provides geo-engineering information on the potential for a borrow pit to be opened on the Site. The aim of this assessment is to provide:

- a preliminary indication of the suitability of the bedrock as a road building material;
- potential borrow pit locations;
- indicative borrow pit dimensions;
- indicative extraction volumes;
- estimates of overburden volumes borrow pit locations;
- an indication of potential extraction methods;
- recommendations for geotechnical testing; and
- preliminary borrow pit re-instatement and rehabilitation proposals.

1.1.3 This report outlines the methodology used by Ramboll for borrow pit assessment along with the analysis undertaken; conclusions drawn and recommendations for borrow pit design and location.

Limitations

1.1.4 It should be noted that all borrow pit information provided within this report is indicative only and is based on desk study and Site reconnaissance alone. No intrusive investigation (other than peat probing) has been carried out and consequently the suitability of the rock, suggested extraction methods and volumes are broad estimates and should be treated as such. A detailed ground investigation (such as boreholes and trial pits) will be required to determine the suitability of the rock (extent and quality), potential for groundwater ingress, and to determine geotechnical parameters. Recommendations can then be made with regards to groundwater control, slope stability, extraction methods and finalised detailed design. The search area has been identified for a borrow pit to allow for any adjustments following the results of the ground investigation. The borrow pit is likely to be significantly smaller than the search area.

1.1.5 This report represents the findings and opinions of experienced geotechnical consultants based upon the information obtained from a variety of sources as detailed. Ramboll believes the information obtained from third parties is reliable but does not guarantee its authenticity. The information has been accepted de facto but professional judgement has been used in its interpretation.

1.2 Methodology

1.2.1 This report comprises a desk-based study and notes compiled from a geo-engineering walkover survey. The desk study consisted of a review of the available geological and hydrogeological data together with additional information relating to the Site including:

- 1:50,000 and 1:25,000 scale Ordnance Survey (OS) topographic mapping;
- OS Elevation Digital Terrain Mapping (DTM) data;
- review of geological mapping[1] for the Site, British Geological Survey (BGS) 1:50,000 scale;
- review of publicly available aerial photography and OS aerial imagery;
- groundwater vulnerability map of Scotland[2];
- BGS 1:625,000 scale hydrogeological map[3];
- review of peat probe survey field data; and
- a site walkover to identify suitable borrow pit locations.

1.2.2 Two walkover surveys of the Site were conducted to determine suitable locations for borrow pits. Two former borrow pit locations are present to the east of the Site within the Brown Hill forest area. Both locations likely provided aggregate for the existing forest tracks, however, both locations are within watercourse buffer zones and are not therefore considered suitable for further rock extraction. One location was identified as suitable for rock extraction.

1.2.3 The two reconnaissance site walkovers and general survey work were undertaken between the 16 to 23 March and the 7 to 15 July 2021. All survey work recorded detailed field notes and photographs of the potential borrow pit sites, including details of the geological and hydrogeological aspects of each identified location. A hand held GPS was used to determine the grid reference.

1.2.4 The suitable borrow pit location has been considered in more detail with preliminary layouts and volume estimates calculated of material which could be extracted. This is discussed in more detail in subsequent sections.

Borrow Pit Constraints

1.2.5 One of the principal factors affecting borrow pit location is the thickness of overburden material, due to the increased effort required for its excavation and handling before the source of the aggregate is reached. Therefore, this assessment has identified an optimal borrow pit location where there would be no, or only a very thin veneer of superficial deposits, especially peat (due to its high moisture content).

1.2.6 In addition, the borrow pit assessment has sought to avoid areas of high groundwater table in order to reduce potential for effects on groundwater dependent terrestrial ecosystems (GWDTE). In doing so, the potential borrow pit location also reduces the potential for erosion and additional processes required for handling and treatment of groundwater. At this stage groundwater mitigation measures, including an application for a Controlled Activities Regulation License (CAR)[4], are considered not to be required. Groundwater levels within the proposed borrow pit search area will be confirmed on findings from detailed ground investigation.

1 British Geological Survey, Web Map Services (WMS) – UK Geology Datasets.[Accessed 02/02/2022] Available: http://bgs.ac.uk/data/services/wms.html

2 Scottish Environment Protection Agency flood map. [Accessed 02/02/2022] Available: http://map.sepa.org.uk/floodmap/map.htm

3 British Geological Survey, 1:625,000 scale digital hydrogeological data. [Accessed 02/02/2022] Available: http://www.bgs.ac.uk/products/hydrogeology/maps.html

4 The Water Environment (Controlled Activities) (Scotland) Regulations 2011

1.2.7 The borrow pit location has also been selected to avoid existing watercourses, due to the potential for runoff of sediment and fine grained material.

1.2.8 Consideration is also given to the potential for visual effects and impacts on the setting of cultural heritage features; however it is considered that with sensitive development and appropriate restoration, long term significant effects associated with borrow pits can be avoided.

1.2.9 The location of the potential borrow pit has been selected to be close to the existing forestry track. The proximity to proposed Site infrastructure is a key factor which has also been considered in the identification of potential borrow pit sites.

1.3 Desk Study and Site Information

Site Location and Setting

1.3.1 The Site location and setting are described in Chapter 1: Introduction.

Topography

1.3.2 The Site topography is generally moderately steep rising ground across the western extents of the Site rising from the west at elevations of between 320 m to 501 m Above Ordnance Datum (AOD) at the summit of Garbet Hill. Ground also rises sharply across the northern Site extents from the northern boundary with the Chapel Burn watercourse to the summit of the Craig Watch Hill formation between elevations of 350 m to 448 mAOD. Moderate rising ground is also located to the east of Site around Brown Hill (440 mAOD). The central areas of the Site from the eastern slopes of Garbet Hill to the area known as White Knaps is represented by moderately undulating ground. Topography elevations are shown on Figure 2.5.1, Technical Appendix 2.5: Peat Landslide Risk Assessment.

Superficial Geology

1.3.3 The 1:50,000 scale geological mapping available from the British Geological Survey (BGS)[5] shows the superficial geology of the Site predominantly comprises Quaternary aged, Devensian, Till – Diamicton. Alluvial deposits, comprising River Terrace sand, silt, clay and gravels, bound the Site to the south east and west and are associated with the Findouran Burn and Burn Treble watercourses. Peat deposits are shown to be predominantly present within forest area to the north of the Site.

1.3.4 Areas of the Site, predominantly surrounding hill formations, are mapped as having no superficial deposits present which could imply that rockhead is relatively shallow in these areas.

1.3.5 Peat probing undertaken by Ramboll in 2021 confirmed the presence of peat, this largely corresponded to the 1:50,000 scale BGS geological mapping. The findings of the survey are presented within Technical Appendix 2.3: Peat Depth Survey Results.

1.3.6 Generally, peat was noted to be shallow across the majority of the site with the exception of the Brown Hill and Howeshalloch Forest areas. Within the forestry areas, the composition and integrity of the peat was noted to be highly modified. Further site-specific information on the extent, depth and stability of peat at the Site is provided in Technical Appendix 2.5: Peat Landslide Hazard Risk Assessment.

1.3.7 The depth of superficial deposits was taken into account when selecting potential borrow pit locations, typically avoiding areas with >0.5 m peat or other superficial deposits.

Bedrock Geology

1.3.8 The 1:50,000 scale geological mapping available from the British Geological Survey (BGS)[4] shows the majority of the Site to be underlain by Neoproterozoic era, Pelite And Semipelite. Metamorphic Bedrock formed approximately 541 to 1000 million years ago from the Blair Atholl Subgroup. The bedrock is noted to be frequently interbedded with limestone in areas. The underlying bedrock of Garbet Hill and Craig Watch hill formations is shown as Kymah Quartzite Formation metamorphic bedrock from the Islay Subgroup. Igneous intrusion has occurred to the northwest and eastern boundaries of the Site within the pelite formation rocks by Ordovician aged metagabbro from the Ernan-glass Metabasic Swarm and similar aged Serpentines from the Succoth-Brown Hill Type Ultramafic Intrusion. Bedrock geology is shown on Figure 2.5.3, Technical Appendix 2.5: Peat Landslide Risk Assessment.

Structural Geology

1.3.9 BGS mapping indicates two faults are present on-site. One fault bisects the centre of the Site running north east to south west. The second fault runs approximately east west across the Site through the Brown Hill Forest area.

Hydrogeology and Hydrology

1.3.10 The BGS 1:625,000 scale hydrogeology mapping defines the metamorphic rock formations underlying the Proposed Development area as impermeable rock. Any groundwater flow within the bedrock will be limited to the weathered zone or secondary fractures.

1.3.11 It is likely that the key aquifers within the Site will be limited to superficial deposits and the weathered bedrock zone.

1.3.12 There are a number of watercourses and small drains on the Site, including the Green Burn/ Burn of Findouran, the Burn of Succoth, the Burn of Guestloan, Linn Burn, Tammie's Burn, Chapel Burn and Kellholes Stripes, as well as further unnamed watercourses. These watercourses and the delineation of sub-catchments of watercourses on the Site are shown in Figure 2.5.4, Technical Appendix 2.5: Peat Landslide Risk Assessment. All areas on which construction associated with the Proposed Development could take place are within the catchment of the River Deveron.

1.3.13 Land in the south west of the Site drains in a westerly direction via Green Burn/ Burn of Findouran and further unnamed streams and drains to Charach Water (also referred to as Burn Treble), and on to the River Deveron.

1.3.14 The north east of the Site (to the north of the watershed running in a north easterly direction between Garbet Hill and Craig Watch) drains to tributaries of the Chapel Burn and Tammie's Burn, which both flow from the Site in a north easterly direction and discharge to the River Deveron. Land to the south east of this watershed drains in a south easterly direction via the Burn of Succoth, the Burn of Guestloan and Linn Burn to the River Deveron.

1.3.15 A very small area close to the central northern boundary of Site is in connection to Keelholes Stripe which flows on to Markie Water which in turn discharges to the River Deveron. No development is proposed on areas of the Site within the catchment of Keelholes Stripe.

1.3.16 The average annual rainfall for the nearest weather station (Met Office weather station at Keith) is 888.75 mm , based on the most recent dataset (1991 to 2020)[6] .

1.3.17 The borrow pit search area has been selected to avoid borrow pit extraction within 50 m of existing watercourses or waterbodies and with standard mitigation (i.e., an upslope cut-off/ diversion ditch to intercept surface water together with minor attenuation features or soakaways) the borrow pits are not considered likely to have any significant effect on surface water.

[5] British Geological Society https://mapapps.bgs.ac.uk/geologyofbritain/home.html

[6] https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gfjzkq7yh

Suitability of Bedrock at the Site as an Aggregate

1.3.18 The Site is underlain by metamorphic rock formations, predominately comprising Pelite and Semipelite or Quartzite. These rocks were formerly sedimentary comprising calcareous Sandstones, siltstones and mudstones. Where low grade metamorphism has occurred then the rocks will retain their former sedimentary characteristics. Where Quartzite was identified during the walkover surveys then these rocks have undergone high grade metamorphism and are considerably altered in both structure and strength.

1.3.19 Sandstone and quartzite are commonly used source of construction aggregate and according to the BGS, the vast majority of sandstone quarried in the UK is used for crushed rock aggregate. Its suitability as aggregate largely depends on its strength, porosity and durability, which are in turn governed by characteristics such as mineralogical composition, grain size and sorting, cementation and weathering state.

1.3.20 A key factor in the suitability of the rock as aggregate is the mineral constitution and mode of occurrence, as often their quality is not uniform. The weathering state of the rock is also of high importance, as this weakens the aggregate and reduces durability. The depth of weathering is dependent on the distribution of joints and other rock discontinuities. From the exposures observed at the Site, the discontinuity spacing varies from medium to very thickly bedded. This suggests there are fewer discontinuities for weathering to exploit leaving the majority of the rock mass fresh and of good quality. Rock exposures near the proposed borrow pit search area showed the Pelite and Quartzite rocks generally did not appear to contain a significant amount of fine grained material, with larger grained materials dominating.

1.3.21 Borrow pits have been previously formed at the Site in order to supply rock aggregate for the construction of the existing forestry access tracks and this provides further confidence that locally sourced rock is suitable for construction purposes.

1.3.22 The bedrock is reportedly an interbedded metamorphic sequence and the grading is unlikely to be uniform. Therefore, the likely localised presence of fine grained beds within the bedrock formation may constrain their potential for aggregate production. As such, potential extraction sites within these formations should be carefully sited and investigated to minimise extraction of argillaceous strata or material with a potential for high fines content after excavation/ grading.

1.4 Borrow Pit Search Areas and Restoration Details

1.4.1 The proposed borrow pit search area has been selected as its morphology is ideal for stone extraction (limited cover, rock close to surface and steep slopes). The proposed borrow pit location has been sited to avoid areas with >0.5 m peat or other superficial deposits. The location also takes into account visual, ecological, hydrological and cultural heritage constraints. The search area identified allows for any adjustments following the results of the ground investigation. The borrow pit is likely to be significantly smaller than the search area.

1.4.2 The borrow pit search area is located to the north east of the Site within the Howeshalloch Forestry site area. Rock outcrops were identified during the walkover survey across the majority of the proposed borrow pit search area. Hence, it is considered likely that bedrock will be close to the surface at this location.

1.4.3 The preliminary estimation of potential material quantities which could be extracted from the proposed borrow pit location is provided in Table 2.2.1. The volumes given have been calculated from indicative cross-sections of the borrow pit assuming all extraction is undertaken from a single layer or 'bench', taking into account gradients of the ground surface and the indicative borrow pit footprint dimension and depth approximations. Please note that these figures do not account for any reductions due to wastage (associated with bands of unsuitable fine grained bedrocks or highly weathered material) or bulking of excavated materials.

1.4.4 No account has been taken in the calculations for 'winning' rock during the construction phase (e.g. through track and turbine base excavations and widening of the existing track). The extent of material sourced in this manner would minimise the extraction of rock from the borrow pit.

1.4.5 Overburden/ soils together with processing residue would be carefully stockpiled adjacent to the excavation void for use in the borrow pit restoration process. The stockpiles would be located and battered so as to limit instability and erosion. Silt fences and mats will be used to minimise sediment levels in runoff from the stockpiles.

1.4.6 It is anticipated that, upon completion, the borrow pit would be partially reinstated. This will involve the reworking of faces to stabilise them, partial infilling with surplus material and landscaping with peat and soils excavated during the wind farm construction. There may also be the potential for environmental enhancement by creating small wetlands or other desirable habitats.

1.4.7 Typically the borrow pit restoration would utilise processing residues and overburden, and would create slopes within the excavation at an approximate gradient of 2 (V) in 1 (H). The crest of the slopes would intersect the uppermost rock face at a position which partially obscures the lower part of the faces. The toe of the restoration faces would be blended in to the borrow pit floor, which itself would be re-profiled to allow drainage and the re-introduction of appropriate cover. The upper part of the borrow pit faces would remain exposed and would be allowed to become weathered. It is envisaged that this face would acquire an appearance similar to that of other natural rock exposures in the locality.

Borrow Pit Details

1.4.8 An indicative borrow pit design has been prepared for the proposed borrow pit search area location, and includes the following details and assumptions:

- the footprint area of the excavation for the proposed borrow pit;
- a typical cross section for the borrow pit;
- assumed quarry face profile approximately 70 degrees;
- the intermediate bench, if required, would be excavated to a maximum width of 1.5 m;
- the borrow pit floor is excavated to a nominal depth but would in practice be inclined gently down slope into the excavation;
- the maximum height of any single face would be no more than 8 m;
- localised forestry in these areas would need to be cleared (refer to Technical Appendix 2.6: Forestry); and
- drainage would be managed using a peripheral cut off ditch.

Proposed Borrow Pit

1.4.9 The proposed borrow pit is located adjacent to the existing track on the north eastern slope of Craig Watch Hill, as shown on Figure 2.2.1. No peat cover is present at this location based on the peat probe surveys undertaken.

Table 2.2.1: Proposed Borrow Pit (NGR 339860, 836066)

Site Area	Maximum dimensions of search area: 180 m length 160 m width
Borrow Pit Search Area	28,800 m²
Borrow Pit Excavation Dimensions	Assumed dimensions: 160 m length 30 m width
Height of Excavation	7.4 m maximum

Table 2.2.1: Proposed Borrow Pit (NGR 339860, 836066)	
Area of Land Impacted	4,500 m^2
Slope Angle from DTM mapping	The slope angle of the search area is between 9 and 18 degrees
Elevation of floor during construction	389 to 397 mAOD
Details of Extraction	Hard ripping, locally easy ripping (Quartzite) and hard digging (Pelite). This is based on limited exposures noted during the walkover surveys. Current estimates of fracture/ bedding spacing are between 0.2 m and 0.6 m[7].
Overburden Type and Depth	Superficial deposits during the peat probing survey recorded 0.1 to 0.2 m of superficial soils in this location, an overburden of less than 0.3 m is assumed.
Indicative volume of aggregate extraction	Approximate volume of 12,000 m^3 between levels of approximately 389 m and 397 mAOD over the length of borrow pit.
Aggregate Composition	Assumed Quartzite interbedded with pelite, with moderate weathering. Fracture spacing 0.2 m to 0.6 m. Limited rock outcropping observed in the area

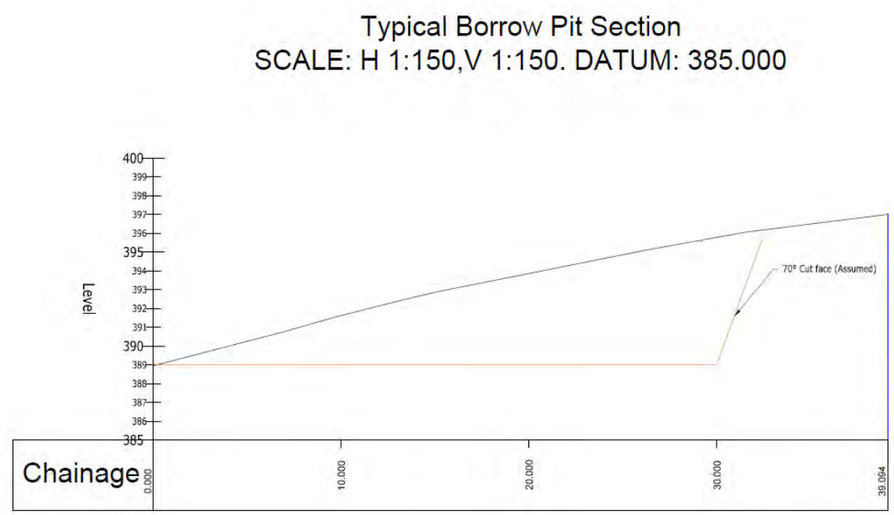

Figure 2.2.1: Typical Borrow Pit Section

1.5 Summary

1.5.1 Exposures of metamorphic rocks bedrock comprising quartzite and pelite have been identified across the Site. It is considered that the proposed borrow pit search area would provide sufficient and suitable aggregate for access track construction given its strength and likely durability, however a detailed ground investigation including boreholes and trial pits would be required to determine the suitability of the rock. An assessment would be required to confirm the exact extraction methods based on the intrusive site investigation data.

1.5.2 Indicative aggregate volumes from the proposed borrow pit are assumed to be in the order of 12,000 m^3 based on the dimensions and levels provided in Table 2.2.1. However, this would depend on a number of factors including:

- results from the detailed design and intrusive investigation work prior to extraction including volume, quality and quantity of rock available for extraction at each location;
- potential visual impacts at each location; and
- potential impact on forestry design.

1.5.3 At the time of this writing report known quantities of required aggregate for construction of the Proposed Development infrastructure are unknown. However, based on the initial assessment presented above, it is considered unlikely there would be sufficient rock to satisfy the demands of the Proposed Development and off-site rock would have to be sourced to provide sufficient quantities for construction.

1.6 Construction Requirements

Extraction Operations

1.6.1 The requirement to produce various grades of aggregate would necessitate the use of mobile plant and equipment. This operation would comprise of a number of different elements which are summarised below.

1.6.2 Excavation of Materials - Hard ripping to easy ripping is envisaged to be the methodology required for extraction of materials based on the assessment of observed rock strength from the Site walkover. Rock samples should be taken for strength testing by an approved geotechnical laboratory to derive point load and Unconfined Compressive Strength (UCS) values. The contractor may wish to re-evaluate any alternatives to the requirement for digging on the basis of the available rock quality data (drilling and blasting may be required but it is considered unlikely).

1.6.3 Initial Stripping and Preparation - the initial access routes to the borrow pit would need to have some preparation prior to the introduction of the main items of excavation plant, particularly, those located off the existing Site access track.

1.6.4 Tree clearance would be required at the proposed borrow pit location, however this would be minimised where possible. Further detail on proposed felling and the forest design plan is provided in Technical Appendix 2.6: Forestry. It is envisaged that the significant items of mobile plant would either possess 'caterpillar' type tracks or high traction rubber tyres and would be capable of traversing surfaces which have had a relatively minimal amount of preparation.

1.6.5 It is anticipated that initial preparation would consist of a series of passes using an excavator with blade along or near to the final route of the permanent access track. This would have the effect of removing vegetation and any soft material, and also in compacting the weathered material located immediately above the bedrock. The gradients of prepared access way would be no steeper than 1(V) in 10(H). The borrow pit would be accessed from the existing track network. There is the potential for some short sections of track to be constructed from imported materials, unless locally sourced suitable materials can be located. In addition the area of the proposed borrow pit would require to be stripped of the superficial material including any soil which lies above bedrock. This material would need to be carefully lifted and placed in storage mounds within an appropriate storage area.

1.6.6 Crushing and Screening - The primary component of this operation would consist of a mobile crushing and screening system. Modern mobile crushing plants are available in a number of different formats and are usually available complete with screening capability. The contractor would need to provide a plant setup that meets the project requirements in terms of the ability to process the raw material, the quantities of the material required and the quality and size gradings of the product.

[7] A revision of the graphical method for assessing the excavatability of rock, Pettifer and Fooks, Quarterly Journal of Engineering Geology and Hydrogeology 1994; v. 27; p. 145-164,

1.6.7 It is also envisaged that a rubber tyred front end loader would also be required in order to serve the crushing and stockpiling operation, as well as to produce loadout facilities for the truck and shovel based roadmaking operation.

1.6.8 Drainage - a drainage and surface water management system would be provided in order to control surface water runoff. Due to the relatively small size of any proposed excavation together with the associated plant site, the system would comprise of a peripheral cut-off ditch together with minor attenuation features or soakaways.

1.6.9 Given the low permeability and generally thin veneer of the overlying peat and superficial deposits it is not anticipated that groundwater ingress would be significant. However, the flow capacity of the bedrock would need to be determined to identify whether fracture flow is likely to be encountered and if standing water is likely to collect in the base of the excavation.

1.6.10 Water entering the borrow pit would need to be removed by either gravity drainage design or pumping depending on the overall morphology of the pit. The general topography in the areas identified is conducive to gravity drainage owing to the moderate to steep slopes. Discharge consent/ CAR licence may be required from SEPA for this activity. Water removed from the excavations would be passed through an appropriate sediment settling system to remove suspended sediment prior to discharge. The constructed drainage system and water pumped from the excavations would not be discharged directly to any natural watercourse.

1.6.11 It is not anticipated that groundwater would be largely encountered by the opening of the borrow pit at the Site due to the high elevations and slope angles. However, the groundwater regime would need to be verified through further ground investigation.

Environmental Management

1.6.12 The Proposed Development would be designed, constructed, operated and decommissioned in line with relevant environmental legislation, guidance and good practice, to ensure that soils, and both groundwater and surface water are not contaminated.

1.6.13 During construction activities, a Construction Environmental Management Plan (CEMP) would be used to manage the potential impacts on the environment, and a specific plan covering borrow pits would be developed as part of the CEMP.

1.6.14 Assuming good practice techniques are adhered to at all times and the implementation of mitigation measures as discussed above, it is anticipated that residual impacts from borrow pit activities on surface water, groundwater and soils would not be significant.

1.7 Conclusions and Recommendations

1.7.1 A reconnaissance walkover and supporting field surveys have been carried out at the Proposed Development to identify potential borrow pit sites. One viable potential borrow pit search area location has been identified from desktop data analysis, fieldwork and visual appraisals.

1.7.2 The surveys demonstrated that the areas of greatest potential in terms of bedrock excavation were located within the north east of the Site within the Howeshalloch Forest Area. Whilst existing borrow pits were used as a source of stone for the construction of the existing forest tracks across the Site, they are located within watercourse buffer zones and as such are considered unsuitable as sites of further excavation.

1.7.3 The proposed borrow pit is located on bedrock comprising metaporphic Quartzite and Pelite rock; these are predominantly coarse grained, but occasionally interbedded with fine grained materials. The quality of finer grained material would be verified through further ground investigation to minimise waste material being generated at the locations. No ground investigation has been undertaken at the Site to inform the assessment.

1.7.4 The proposed borrow pit is located on a slope with slope angles between 9° and 18°, which could be excavated within a single layer of excavation. The overburden depths at the Site are generally shallow and predominantly less than or equal to 0.2 m with no peat cover.

1.7.5 The volume of aggregate required during the construction of the Proposed Development is currently unknown and would require detailed engineering assessment. The estimated amount of aggregate which could be won from the proposed borrow pit has been calculated as approximately 12,000 m^3. This figure does not allow for any reduction for waste and unsuitable material. No allowance has been made for the bulking of materials on excavation.

1.7.6 The primary use of aggregate arisings would be for the construction of tracks using unbound aggregate to the turbine suppliers' specifications and conforming to the Specification for Highways Works.

1.7.7 Detailed ground investigations, slope stability assessments and geotechnical testing would be required to inform the detailed design of the borrow pit to confirm the suitability of the material for use as part of the Proposed Development. It is anticipated that impacts on groundwater, surface water and soils from extraction of aggregate would not be significant, assuming use of good practice construction techniques and implementation of mitigation measures as set out in this document.

Annex 2.2.1: SITE WALKOVER OBSERVATIONS

Proposed Borrow Pit Location

Borrow Pit Search Area (NGR 339860, 836066)	Lithology	Comment
Proposed borrow pit to be located adjacent to the west of forestry track in the north east of the Site within Howeshalloch Forest. Mature tree cover across proposed borrow pit search area. Rock outcrops across areas of the forest area, likely to have been exposed through forestry planting and tree growth. The slope angle range between 10 to 20 degrees. 	Coarse grained Pelite and Quartzite rock. Fracture spacing estimated as >200 mm to 600 mm (medium to wide). Bedding is not confirmed as observations based on cobble and boulder formations at ground level so orientation is unknown).	It is considered likely that excavation into the slope can be achieved along 150 m of the track length and 30 m into the slope. No observations were noted of slope instability.