

PLANNING APPLICATION SUMMARY TABLE:

Response to SEPA Screening Response

Planning Application: Table 1 Responses to SEPA Screening Response

Consultee	Contact	Date	Information/Comments	Response/Comments
Statutory Consultee				
Scottish Environment Protection Agency (SEPA)	Susan Haslam Senior Planning Officer Planning Service Dingwall Office	22 nd March 2012	<p>1. Scope of the ES for marine developments</p> <p>Paragraph 1.1 Recommends a single ES to be produced covering all aspects (marine and land-based) to enable a 'full assessment of the potential effects of the proposed development'</p>	<ul style="list-style-type: none"> The need for EIA and a formal Environmental Statement has been screened out This point therefore noted, however the original Screening Report was set out in a way which addressed all relevant potential environmental effects, and where necessary appropriate mitigation has been identified and will be taken forward through a detailed Construction Environmental Management Document (CEMD) (see Collated Mitigation document submitted with the planning application and marine Licence application)
			<p>2. Water Framework Directive and River Basin Management</p> <p>Paragraph 2.1 Suggests that the ES or planning submission should indicate whether the proposed development will lead to deterioration of the water environment or present opportunities for improvement (taking into account the requirements of the Water Framework Directive)</p>	<ul style="list-style-type: none"> Point noted and this is covered in Section 3.5 of the Screening Report Section 3.5.4 considers the potential for residual effects on the water environment and concludes that there will be no significant adverse effects through a combination of: <ul style="list-style-type: none"> adopting best practice and strict mitigation measures when working in or near to water; close consultation with SEPA; meeting all requirements of the Water Environment (Controlled Activities) (Scotland) Regulations 2011; clear requirements set out in the CEMD <p>The CEMD will detail all committed mitigation</p>
			<p>Paragraph 2.2 Is a reminder that all coastal water out to three nautical miles seaward falls under the Directive</p>	Point noted
			<p>Paragraph 2.3 Is a reminder of information available with regard to River Basin Management Plans and the need where possible to contribute to Water Framework Directive objectives</p>	Point noted and provides a helpful context
			<p>3. Site Layout etc</p> <p>Paragraph 3.1 suggests that the ES should contain detailed information on the development including site layout, choice of the site, consideration of alternatives and details of onshore and offshore components</p>	This was all detailed in Chapter 2 in the Screening Report. In this chapter there are details of the need for the project, the alternatives, a description of the marine and land-based components, detailed site drawings, details of access, details of work programme and construction methods
			<p>4. Marine Ecological Interests</p> <p>Paragraph 4.1 Notes that a baseline benthic survey has been carried out</p>	No response needed

Consultee	Contact	Date	Information/Comments	Response/Comments
			<p>Paragraph 4.2 Asks for clarification of how close the seapen communities (noted in the baseline survey) are to the development site and whether they could be impacted on during the operations of the berthing facility</p>	<ul style="list-style-type: none"> • The Screening Report and its supporting Baseline Littoral and Sublittoral Survey Report (to be submitted with the Marine Licence application) indicate that habitat supporting seapens were a 'significant distance' from the proposed development at 17.0-26.6m bcd (that is over 100m distant) • They also both conclude that the biotope containing the seapens would not be significantly affected by 'moderate' inorganic siltation • Since at most there would be ten deliveries by larger vessels to the berthing facility and given the conclusion that the seapen communities were a significant distance from the facility and not 'classic examples' of such communities and already showing resilience to siltation then the conclusion in the Screening Report that no significant effects on species of nature conservation interest would be predicted from the proposed development, appears to be sound
			<p>Paragraph 4.3 Recommends that controls against the accidental introduction of Marine Non-Native Species should be included in method statements as part of the marine licence application process</p>	<ul style="list-style-type: none"> • Point noted and these will be included in the marine licence application and in the CEMD
			<p>5. Offshore water abstractions and discharges</p> <p>Paragraph 5.1 Emphasises that sensitive water uses and the proximity of existing discharges and designated sites should be assessed</p>	<ul style="list-style-type: none"> • These are covered in the Screening Report in Section 3.3, and Figure 3.1 illustrates the key site constraints including designated areas. Section 3.3.1 identifies the main sensitive uses including a salmon fish farm (some 2 km away) and creeling • The conclusions are that with the application of best practice techniques and the delivery of the requirements that will form the basis of the water quality protection plan in the CEMD, there will be no significant residual adverse effects on sensitive water uses

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			<p>Paragraph 5.2 Concerns are expressed here about the possible introduction of non-native marine species from ballast waters or hull fouling</p>	<ul style="list-style-type: none"> • The vessels delivering turbines would arrive fully laden and would not have to dump ballast water on arrival. It is likely that water would have to be taken on before departure from the loch • The introduction of non-native marine species from ballast water is therefore not considered to be a significant risk • Only very few deliveries (some ten) would be made to the berthing facility and the risk of introduction of non-native species from hull fouling would be low. The speed of any vessel at sea would be greater than as it approaches the berthing facility. So in addition it would be likely that any species adhering to the hull and prone to dislodging would be dislodged at sea rather than at low speed in the more sheltered waters of Loch Sealg
			<p>Paragraph 5.3 Recommends references and further guidance on dealing with ballast water</p>	<ul style="list-style-type: none"> • Point noted and references to be consulted where appropriate
			<p>6. Onshore engineering activities in the water environment</p> <p>Paragraph 6.1 Emphasises that where possible on shore components of development should avoid engineering activities in water</p>	<ul style="list-style-type: none"> • Point noted and where possible will be complied with

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			<p>Paragraph 6.2 Highlights the requirement to demonstrate that every effort has been made to leave the water environment in its natural state and questions whether the proposed access track is too long as well as noting the need for a watercourse crossing</p>	<ul style="list-style-type: none"> • Access track development is covered in Chapter 2 of the Screening Report and potential impacts on geology and soils in Section 3.4 and on hydrology, water and drainage in Section 3.5 • The Screening Report explains that the access track has been designed to accommodate abnormal loads (heavy construction plant delivering the turbines to site) and therefore the track needs to be the right gradient, width and substrate to achieve this requirement • The access track has been designed to follow a minimum gradient from the laydown area, taking account of the risk for peat slide. The risk of peat slide would be mitigated by implementing best practice guidelines (and is reduced by following a suitable gradient) • The mitigation measures set out in Section 3.4.3 and detailed in the CEMD would control the risk of pollution on site and avoid unnecessary disturbance of soils and peat • The track would cross the Allt Tob Chumraborgh and a tributary to this and would necessitate a culvert crossing (constructed in accordance with best practice)
			<p>Paragraph 6.3 Highlights the need to avoid engineering activities such as bridges and culverts unless there is no practicable alternative. References to best practice guidance are provided</p>	<ul style="list-style-type: none"> • Point noted and reference will be made to the relevant guidance documents where relevant • The culvert crossings identified as necessary would be constructed in accordance with best practice. CAR licences would be obtained for these works where necessary • No flood risks to people from any of the engineering works have been identified
			<p>Paragraph 6.4 Sets out a request for a site survey of existing water features and a map of all proposed engineering activities in the water environment together with a table detailing activities, potential impacts and mitigation</p>	<ul style="list-style-type: none"> • Some of the information requested here is already set out in Section 3.5 in the Screening Report • Additional information included in Attachment 1 to this table
			<p>Paragraph 6.5 Provides some recommendations for taking opportunities to improve the water environment where this is practicable</p>	<ul style="list-style-type: none"> • Points noted and opportunities will be sought to incorporate these through the plans in the CEMD developed for the engineering activities needed for the proposed facility

Consultee	Contact	Date	Information/Comments	Response/Comments
			<p>7. Onshore water abstraction</p> <p>Paragraph 7.1 Provides information on water abstraction and sets out the information required in the planning submission</p>	<ul style="list-style-type: none"> Points noted A private water supply will not be used as a source of water There is no public water supply near to the proposed development so it is intended to abstract water for the concrete batching plant from a nearby surface water 'un-named' burn with the necessary licence under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (see Section 3.5.4 of the Screening Report)
			<p>Paragraph 7.2 Flags up the requirement for consideration of the possible cumulative impacts on the water environment</p>	<ul style="list-style-type: none"> Some works on the consented windfarm could take place at the same time as construction of the berthing facility. The environmental manager for the windfarm would be required to audit the successful implementation of agreed mitigation measures for the windfarm and also during construction and use of the berthing facility to ensure that no significant effects on the water environment result from the cumulative developments
			<p>8. Disruption to wetlands including peatlands</p> <p>Paragraph 8.1 Requests evidence that impacts on wetlands and peatland are avoided</p>	<ul style="list-style-type: none"> Section 3.4 in the Screening Report that covers geology and soils addresses these points Additional work (see Attachment 2) indicates up to 30,000m³ of peat could be excavated The mitigation that will be carried through with the CEMD shows that through careful design of the track, impacts on peat can be managed and the risk of peat slide would be mitigated. A soils/peat handling and storage strategy would enable the lay down area and access track edges to be restored more naturally to blend in with the surrounding environment
			<p>Paragraph 8.2 Requests a Phase 1 survey with clear identification of all wetlands</p>	<ul style="list-style-type: none"> A Phase 1 Habitat Survey was previously undertaken by LUC as part of the EIAs for the windfarm. This information was used together with a site visit to inform the assessment in the Screening Report
			<p>Paragraph 8.3 Recommends the use of various references for identifying Groundwater Dependant Terrestrial Ecosystems (GDTEs) emphasising the importance of identifying these types of wetland</p>	<ul style="list-style-type: none"> Points noted No GDTEs identified within the proposed development area in the Phase 1 Habitat Survey
			<p>Paragraph 8.4 Comments further about the importance of identifying and locating GDTEs and assessing potential impacts on these wetlands</p>	<ul style="list-style-type: none"> Points noted No GDTEs identified within the proposed development area in the Phase 1 Habitat Survey
			<p>Paragraph 8.5 Comments on route locations of access tracks and the need to avoid GDTEs</p>	<ul style="list-style-type: none"> Points noted No GDTEs identified within the proposed development area in the Phase 1 Habitat Survey

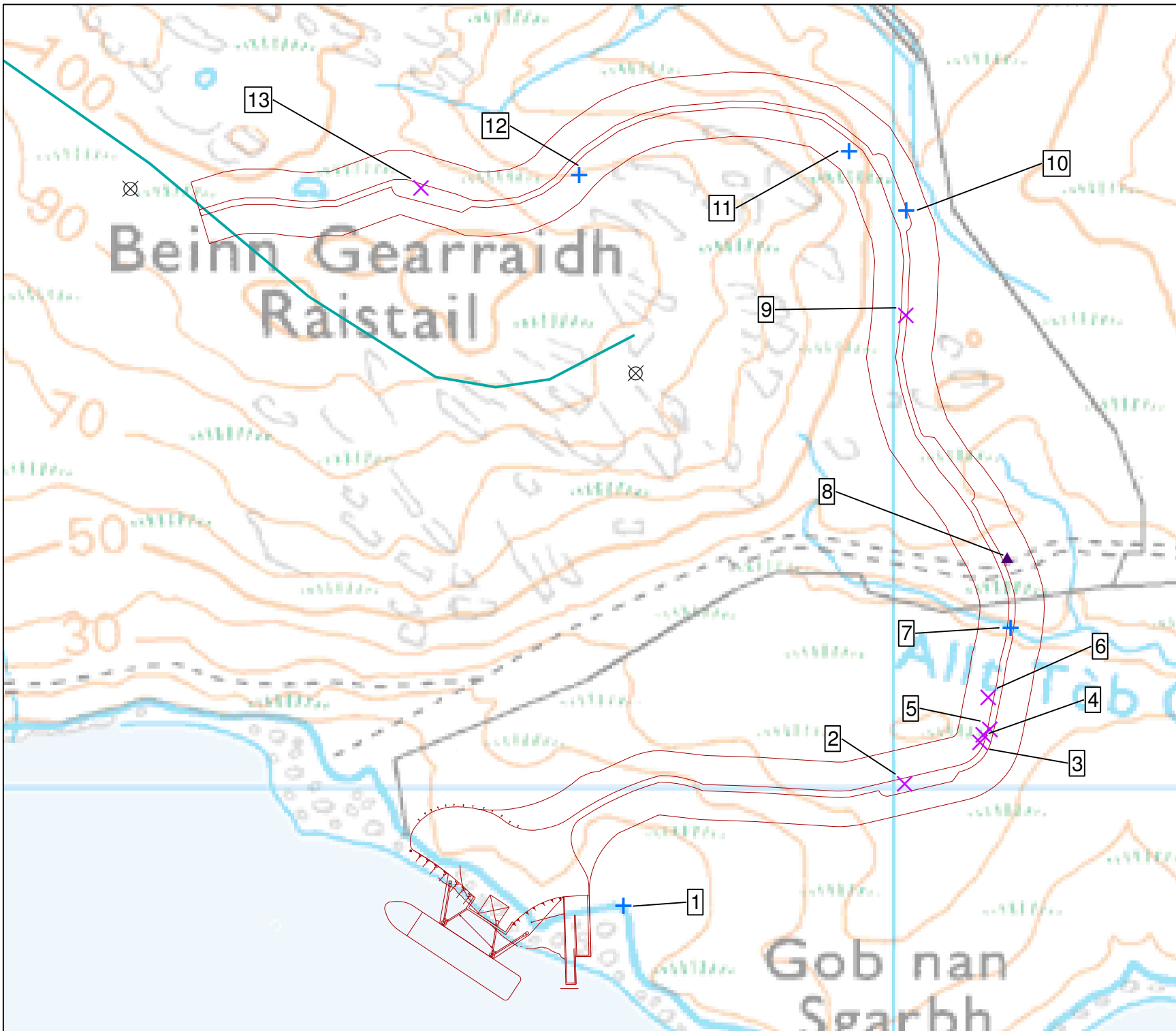
Consultee	Contact	Date	Information/Comments	Response/Comments
			<p>Paragraph 8.6 Sets out need for:</p> <ul style="list-style-type: none"> • clear mitigation where GDTEs cannot be avoided • mitigation to be set out in a CEMD 	<ul style="list-style-type: none"> • Points noted • No GDTEs identified within the proposed development area in the Phase 1 Habitat Survey • The details on mitigation requested here (e.g. peat management, drainage and waste management) will be set out in the CEMD
			<p>9. Reuse and disposal of excavated peat</p> <p>Paragraph 9.1 This sets out a requirement for a detailed map of peat depths where there will be an impact on peatlands</p>	<ul style="list-style-type: none"> • Areas of peat will be encountered during access track construction and peat will be reused in restoration of the laydown areas and the edges of the access track and in restoration of a hatchery near the Lodge the removal of which has recently been given planning permission
			<p>Paragraph 9.2 requests that the planning submission should detail the likely volumes of surplus peat that will be generated and how it will be reused/disposed of</p>	<ul style="list-style-type: none"> • Up to some 30,000m³ of peat could be excavated (see above and Attachment 2) • Reuse of the peat would be dealt with through best practice measures to be set out in the CEMD • This will detail how peat will be reused in appropriate restoration work including restoration of the laydown area, the sides of the access track and to restore the area of a hatchery to be removed (see above)
			<p>Paragraph 9.3 comments on landscaping large volumes of peat, the risks of peat slide and the placement of surplus peat in borrow pits</p>	<ul style="list-style-type: none"> • Points noted but excavation of extensive peat on this scale is not planned or anticipated • The excavated peat will be dealt with through best practice procedures set out in the CEMD (there will be best practice procedures set out to deal with working in peat, handling and storage of peat and restoration work using peat) • No peat slip hazard identified that would not be mitigated by the detailed design (see Section 3.4.4 of the Screening Report)
			<p>Paragraph 9.4 discusses the waste management implications of disposing of significant volumes of peat and the need to avoid this if at all possible</p>	<ul style="list-style-type: none"> • Points noted, however the delivery of the development does not involve large scale handling and disposal of peat
			<p>Paragraph 9.5 provides more comments and references to dealing with large scale surplus peat</p>	<ul style="list-style-type: none"> • Points noted and reference will be made to the guidance provided where appropriate
			<p>10. Existing groundwater abstractions</p> <p>Paragraph 10.1 provides comments on risks to groundwater abstractions and a request for these to be listed is made</p>	<ul style="list-style-type: none"> • The Screening Report indicated that there are no groundwater abstractions in proximity to the works • The water supply for the properties at Eisgein is a spring above the Lodge • No potential impacts identified

Consultee	Contact	Date	Information/Comments	Response/Comments
			Paragraph 10.2 provides further detail on dealing with groundwater abstractions	<ul style="list-style-type: none"> The Screening Report demonstrates that this is not an issue
			11. Borrow pits Paragraph 11.1 Sets out requirements if any new borrow pits are planned	<ul style="list-style-type: none"> No new borrow pits are planned and this was indicated in the Screening Report (see Section 2.4.5) The Screening Report states that it is likely that some stone required for the access track from the berthing facility to Turbine 25 would be sourced from the consented borrow pits on the windfarm site, thus obviating the need for any new borrow pits. Crushed rock for the laydown areas would be sourced locally and brought by barge
			Paragraph 11.2 provides further information on assessing and controlling the impacts of creating new borrow pits	<ul style="list-style-type: none"> Points noted but not relevant to this proposed development
			12. Pollution prevention and environmental management Paragraph 12.1 this sets out the interest of SEPA in pollution prevention	<ul style="list-style-type: none"> Points noted
			Paragraph 12.2 this paragraph advises that the applicant should systematically identify all aspects of site work that might impact upon the environment, potential pollution risks and identify the principles of preventative measures and mitigation It also advises that a draft schedule of mitigation should be produced	<ul style="list-style-type: none"> This has been systematically carried out in the Screening Report Various mitigation measures have been set out A commitment has been made to produce a CEMD that will capture the committed mitigation and turn it into a set of committed activities supported by best practice procedures A collated list of committed mitigation measures is submitted with the planning application

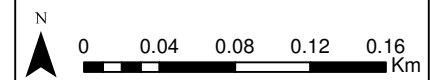
Consultee	Contact	Date	Information/Comments	Response/Comments
			<p>Paragraph 12.3 sets out SEPA's recommendations on producing a CEMD that will capture all the committed mitigation and translate these into method statements and action plans</p>	<ul style="list-style-type: none"> Section 2.4.9 of the Screening Report sets out a clear commitment to the production of a robust construction environmental management plan The Screening Report goes on to state that - <i>'All environmental risks and necessary protection measures (including mitigation measures set out in this Screening Report) would be required to be identified and integrated in the contractor's method statements for all major construction activities. The CEMP would demonstrate how all topic specific and locational specific mitigation would be delivered.'</i>
			<p>Paragraph 12.4 offers a useful reference to developing a CEMD</p>	<ul style="list-style-type: none"> Reference noted
			<p>13. Regulatory advice</p> <p>Paragraph 13.1 offers some helpful regulatory advice on probable authorisations and consents that will be necessary for the proposed development</p> <p>Paragraph 13.2 offers a point of contact address</p>	<ul style="list-style-type: none"> Points noted and will be followed up

ATTACHMENT ONE:

Water Features Schedule



- Key:**
- Turbine Location
 - Windfarm Site Access Track
 - Proposed Berthing Facility and Access Track
 - Burn Crossing
 - Ditch Crossing
 - Grip Crossing
 - Water crossing reference number



DRAWN: AG	CHECKED: AS	DATE: 08.05.2012
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**Eisgein Construction
Berthing Facility
Planning Application**

Figure A1.1: Watercourse Crossings

Proposed Engineering Activities in or Near to Watercourses for Berthing Facility Access Track Construction

Crossing Number	Watercourse Name/Type and Summary Description	NGR		Photograph Reference (both directions)	Likely Engineering Activities in Near Vicinity	Potential Impacts	Mitigation (to be detailed in the Construction Environmental Management Document - CEMD)
		Eastings	Northings				
1	Outfall burn to Loch Shealg	31759	10896	1	<ul style="list-style-type: none"> • Construction of slipway in proximity • No direct impacts • Burn will outflow by edge of slipway 	Pollution from surface run-off Risk of concrete spillage	<ul style="list-style-type: none"> • Adopt best practice for working in or near watercourses • Sediment management to control suspended solids • Detail measures to mitigate risk of concrete spill in CEMD and implement
2	Man-made grip	32009	11005	2, 3	<ul style="list-style-type: none"> • Excavation of peat/soil and underlying rock substrata • Construction of access track • Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> • Installation of 250mm pipe to maintain drainage; or • Re-route ditch to maintain flow of water
3	Man-made grip	32070	11036	4, 5	<ul style="list-style-type: none"> • Excavation of peat/soil and underlying rock substrata • Construction of access track • Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> • Installation of 250mm pipe to maintain drainage; or • Re-route ditch to maintain flow of water
4	Man-made grip	32072	11042	6, 7	<ul style="list-style-type: none"> • Excavation of peat/soil and underlying rock substrata • Construction of access track • Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> • Installation of 250mm pipe to maintain drainage; or • Re-route ditch to maintain flow of water

Crossing Number	Watercourse Name/Type and Summary Description	NGR		Photograph Reference (both directions)	Likely Engineering Activities in Near Vicinity	Potential Impacts	Mitigation (to be detailed in the Construction Environmental Management Document - CEMD)
		Eastings	Northings				
5	Man-made grip	32072	11047	8, 9	<ul style="list-style-type: none"> Excavation of peat/soil and underlying rock substrata Construction of access track Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> Installation of 250mm pipe to maintain drainage; or Re-route ditch to maintain flow of water
6	Man-made grip	32077	11071	10, 11	<ul style="list-style-type: none"> Excavation of peat/soil and underlying rock substrata Construction of access track Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> Installation of 250mm pipe to maintain drainage; or Re-route ditch to maintain flow of water
7	Allt Tob Chumraborgh	32090	11111	12, 13	<ul style="list-style-type: none"> Excavation of peat/soil and underlying rock substrata Construction of access track Temporary stockpiling of materials Localised landscaping and making good 	<ul style="list-style-type: none"> Blocking of natural watercourse with soil and rock debris Pollution from surface run-off rich in suspended solids 	<ul style="list-style-type: none"> Installation of 600mm diameter pipe culvert to maintain natural drainage Adopt best practice for working in or near watercourses Sediment management to control suspended solids
8	Ditch	30286	11180	14, 15	<ul style="list-style-type: none"> Excavation of soil and underlying rock substrata Construction of access track Physical blocking up of ditch 	Localised flooding	<ul style="list-style-type: none"> Installation of 250mm pipe to maintain drainage; or Re-route ditch to maintain flow of water

Crossing Number	Watercourse Name/Type and Summary Description	NGR		Photograph Reference (both directions)	Likely Engineering Activities in Near Vicinity	Potential Impacts	Mitigation (to be detailed in the Construction Environmental Management Document - CEMD)
		Eastings	Northings				
9	Man-made grip	32009	11369	16, 17	<ul style="list-style-type: none"> • Excavation of soil and underlying rock substrata • Construction of access track • Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> • Installation of 250mm pipe to maintain drainage; or • Re-route ditch to maintain flow of water
10	Allt Gleann Chatail	32010	11450	18	<ul style="list-style-type: none"> • Excavation of soil and underlying rock substrata • Construction of access track • Temporary stockpiling of materials • Localised landscaping and making good 	<ul style="list-style-type: none"> • Pollution from surface run-off rich in suspended solids 	<ul style="list-style-type: none"> • Adopt best practice for working in or near watercourses • Sediment management to control suspended solids
11	Man-made grip	31966	11496	19, 20, 21	<ul style="list-style-type: none"> • Excavation of soil and underlying rock substrata • Construction of access track • Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> • Installation of 250mm pipe to maintain drainage; or • Re-route ditch to maintain flow of water
12	Man-made grip	31756	11477	22, 23	<ul style="list-style-type: none"> • Excavation of soil and underlying rock substrata • Construction of access track • Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> • Installation of 250mm pipe to maintain drainage; or • Re-route ditch to maintain flow of water

Crossing Number	Watercourse Name/Type and Summary Description	NGR		Photograph Reference (both directions)	Likely Engineering Activities in Near Vicinity	Potential Impacts	Mitigation (to be detailed in the Construction Environmental Management Document - CEMD)
		Eastings	Northings				
13	Burn leading from col south of Beinn Gearraidh Raistail	31633	11469	24, 25	<ul style="list-style-type: none"> • Excavation of soil and underlying rock substrata • Construction of access track • Physical blocking up of grip 	Localised flooding	<ul style="list-style-type: none"> • Installation of 250mm pipe to maintain drainage; or • Re-route ditch to maintain flow of water



Photo 1: Burn 1



Photo 2: Grip 2



Photo 3: Grip 2



Photo 4: Grip 3



Photo 5: Grip 3



Photo 6: Grip 4



Photo 7: Grip 4



Photo 8: Grip 5



Photo 9: Grip 5



Photo 10: Grip 6



Photo 11: Grip 6



Photo 12: Burn 7 - Allt Tob Chumraborgh (looking west)



Photo 13: Burn 7 – Allt Tob Chumraborgh (looking east)



Photo 14: Ditch crossing



Photo 15: Ditch crossing



Photo 16: Grip 9



Photo 17: Grip 9



Photo 18: Burn 10 - Allt Gleann Chatail (looking from proposed track)



Photo 19: Burn 11



Photo 20: Burn 11



Photo 21: Burn 11 showing scale



Photo 22: Burn 12

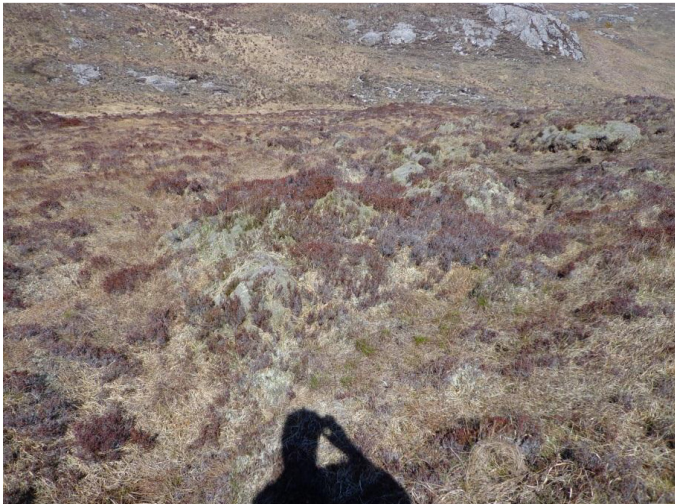


Photo 23: Burn 12



Photo 24: Burn 13



Photo 25: Burn 13

ATTACHMENT TWO:

Peat Map and Supporting Calculations

Calculation cover sheet



Mott MacDonald

Divn/Dept: Power

Project Title: Beinn Mhor Wind Farm

Project Nr: 305481

Section: Marine Access

File Nr: 305481/0001/A

Subject: Peat Volume

Calc Nr: Marine Access Peat Vol

Nr Sheets: 1

Project Manager: [Redacted]

Design A Concept or preliminary

Designer: [Redacted]

Phase B Analysis and detailed design

C Design verification

D Other (specify)

Computer Applications Used

Microsoft Excel
AutoCAD Trueview

Version/Date

2003
2012

Scope of Checking

Manual calculations [Review of method & assumptions](#)

Computer generated calcs [None](#)

Sheets	Calculations by			Checked by		
	Name	Signature	Date	Name	Signature	Date
Calcsheet: 1-1	[Redacted]	[Redacted]	2-May-12	[Redacted]	[Redacted]	2-May-12

a) Basic Design Information or Source and Reference

[Natural Power peat data](#)
[Wallace Stone Marine Footprint](#)

b) Identify documents/technical records where output will be used

[Marine Access Planning Application](#)

Approved by

Proj Manager [Redacted] **Signature** [Redacted] **Date** [Redacted]

Distribution

Original [project file 305481/0001/A](#)

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Project

Beinn Mhor Wind Farm
Marine Access



Calculations for Peat Volume	Divn/Dept	Power	Job/File	305481/0001/A
	Calculated by	T. Hodgson	Date	2-May-12
	Checked by	A. McCreath	Dat	2-May-12
			Sheet Nr	as footer

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1. Purpose

The purpose of this calculation is to determine the approximate peat volume required to create the marine facility and access track to T25 on the Beinn Mhor development.

2. Method

Peat depths will be averaged across the infrastructure footprint based on data provided by Natural Power. Where peat is deeper than 1.5m it is assumed that floating track will be required. No allowance for floating tracks has been made at the marine facility hardstanding.

3. Marine Facility Peat Volume Estimate*Assumptions*

- 1. The proposed development has been split into areas depending on peat depth (A-E). Areas have been extracted from the peat data provided by Natural Power.*
- 2. Due to uncertainty of total footprint (due to lack of CAD layout being available) the entire area has been assumed for stripping.*
- 3. The output table provided below should be read in conjunction with attached sketch mark up.*

Area	Average Peat Depth (m)	Area (m ²)	Estimated Peat Volume (m ³)
A	1	2660	1596
B	2	750	1725
C	2	7100	15975
D	1	1350	1755
E	0	2755	1240
Estimated Volume (m3)			22291

Project

Beinn Mhor Wind Farm
Marine Access



Calculations for Peat Volume	Divn/Dept	Power	Job/File	305481/0001/A
	Calculated by	██████████	Date	2-May-12
	Checked by	██████████	Dat	2-May-12
				Sheet Nr as footer

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4. Access Track to T25*Assumptions*

- The proposed development has been split into areas depending on peat depth (F-). Areas have been extracted from the peat data provided by Natural Power.
- Due to uncertainty of total footprint (due to lack of CAD layout being available) a track plan footprint of 10m has been assumed to make allowance for track and embankments/cutting.
- The output table provided below should be read in conjunction with attached sketch mark up.
- Where peat depth is in excess of 1.5m it has been assumed floating track will be required.

Area	Average Peat Depth (m)	Length (m)	Estimated Peat Volume (m ³)	
1	0.55	43.4	239	
2	N/A	16.2	0	FLOATING
3	0.54	42	227	
4	0.33	50	165	
5	0.56	42	235	
6	1.45	47	682	
7	0.57	47.3	270	
8	0.72	35	252	
9	N/A	41	0	FLOATING
10	1.03	45	464	
11	0.54	35.4	191	
12	0.59	31.8	188	
13	N/A	76	0	FLOATING
14	0.41	49.7	204	
15	N/A	44	0	FLOATING
16	0.92	56.7	522	
17	0.7	47.3	331	
18	0.55	32.2	177	
19	0.75	37.5	281	
20	0.25	43.6	109	
21	0.56	47.2	264	
22	0.13	45	59	
23	0.53	42.3	224	
24	0.29	48.7	141	
25	0.65	47	306	
26	0.35	40	140	
27	0.53	43.7	232	
28	N/A	64	0	FLOATING
29	0.89	47.8	425	
30	0.8	49.2	394	
31	N/A	33	0	FLOATING
32	0.66	56.7	374	
Estimated Volume (m3)			7094	

5. Summary

Based on current information the estimated peat volume is provided below. This volume does not consider areas of floating track.

Area	Estimated Peat Volume (m3)
Marine Facility	22291
Access Track	7094
Total	29384

252.07
250
62.3

MARINE FACILITY PEAT VOL.
2/5/12

