

Intended for
Viking Energy Wind Farm LLP

Date
August 2021

Project Number
1620009158

VIKING ENERGY WIND FARM PLANNING MONITORING OFFICER AUDIT REPORT 010: 4TH AUGUST TO 1ST SEPTEMBER 2021

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1. AUDIT DETAILS

1.1 Audit Details

Audit Number	PMO 010
Location	Kergord Sandwater Road Mid Kame Ridge North Compound and North Nesting Main Construction Compound Nesting
Weather Conditions	Windy, mild, dry (15°C).
Audit Date	25 th August 2021
Audit Period	4 th August to 1 st September 2021
Audit Owner	Ramboll UK Ltd

1.2 Distribution

Position	Action
Ramboll Project Director Planning Monitoring Officer	For information
SSE Renewables Development Manager	For information
SSE Renewables Consents Manager	For information
SSE Renewables Environmental Advisor	For information
RJ McLeod Design Management Engineer	For Information
Shetland Islands Council Planning Enforcement Officer	For information
Shetland Islands Council Natural Heritage Officer	For information

1.3 Terms of Reference

This audit has been completed with reference to the following key documents:

- Application under Section 36C of the Electricity Act 1989 to vary the consent granted under Section 36 of that Act on 4 April 2012 to construct and operate the Viking Wind Farm located in Shetland Islands Council Planning Authority Area and for a direction under Section 57 of the Town and Country Planning (Scotland) Act 1997 for planning permission to be deemed to be granted in respect of the proposed development (i.e. the 'Variation Application').

The Viking Wind Farm project will comprise the construction of 103 wind turbines with a turbine tip height of 155 m; development of a temporary construction compound; construction of associated access tracks; development of a substation; development of a convertor station; erection of permanent Met Masts; and the excavation of borrow pits.

The project was consented as detailed above, receiving Section 36C Consent and deemed planning permission on 24th May 2019.

Separate planning consents are in place for the following specific aspects of the development:

- Construction of the Kergord Access Track¹ (consented on 29th April 2019).
- Re-alignment of Sandwater Road² between the Burn of Weisdale and the junction with the A970 to facilitate construction access for the Viking Wind Farm (consented on 26th May 2020).
- Formation of temporary construction compounds at two locations; Sandwater (Main)³, consented on 22nd June 2020; and North (South of Voe)⁴ consented on 9th September 2020.

1.4 Role of the Planning Monitoring Officer

Condition No. 3 of the Variation Application states that:

"No development shall commence unless and until the Planning Authority has approved in writing the terms of appointment by the Company of an independent and suitably qualified environmental consultant to assist the Planning Authority in monitoring compliance with the terms of the deemed planning permission and conditions attached to this consent (a Planning Monitoring Officer ("PMO")). The terms of the appointment shall:

- Impose a duty to monitor compliance with the terms of the deemed planning permission and conditions attached to this consent;
- Require the PMO to submit a monthly report to the Planning Authority summarising works undertaken on site; and
- Require the PMO to report to the Planning Authority any incidences of non-compliance with the terms of the deemed planning permission and conditions attached to this consent at the earliest practical opportunity.

The PMO shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.

In order to discharge the above requirements, the PMO undertakes site-based audits at monthly intervals to monitor the compliance with the conditions of the consent. The primary documents used for compliance monitoring are the Construction Environmental Management Plan (CEMP); and the Pollution Prevention Plan (PPP). Additional documents will be referenced as required for specific detail.

The following traffic light system is used to indicate action status:

	Green – activities appear to be compliant with the CEMP, PPP and other applicable environmental management procedures and plans and there are no other issues.
	Amber – in general activities are compliant with the CEMP, PPP and other applicable environmental management procedures and plans but there are minor actions required.
	Red – activities may not be compliant with the CEMP, PPP and other applicable environmental management procedures and there are critical actions.

¹ Shetland Islands Council Planning Reference No: 2018/096/PPF

² Shetland Islands Council Planning Reference No: 2019/079/PPF

³ Shetland Islands Council Planning Reference No: 2019/188/PPF

⁴ Shetland Islands Council Planning Reference No: 2019/210/PPF

1.5 General Limitations and Reliance

This report has been prepared by Ramboll UK Limited ("Ramboll") exclusively for the intended use by Viking Energy Wind Farm LLP (the "client"). No other warranty, expressed or implied, is made as to the professional advice included in this report or in respect of any matters outside the agreed scope of the services or the purpose for which the report and the associated agreed scope were intended or any other services provided by Ramboll.

In preparation of the report and performance of any other services, Ramboll has relied upon site observations, publicly available information, information provided by the client and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll was accurate, complete and available to Ramboll within the reporting schedule.

Ramboll's services are not intended as legal advice, nor an exhaustive review of site conditions and/or compliance. This report and accompanying documents are intended to form a record for the purpose of documenting compliance with Condition No. 3 of the Variation Application.

Ramboll neither owes nor accepts any duty to any third party, unless formally agreed by Ramboll through that party entering into, at Ramboll's sole discretion, a written reliance agreement.

2. INTRODUCTION

2.1 Objectives of Audit

The purpose of the PMO Audits is to monitor the provision of appropriate environmental management at active work sites of the project, via desk-based review of relevant documentation and site visits to be undertaken on a monthly basis to ensure compliance with the conditions of the planning consent and associated environmental management plans.

2.2 Scope of Audit

The scope of the audit was as follows:

- Liaison with SIC regarding public concerns or complaints received during the audit period.
- Review of documents provided by the Client and Principal Contractor prior to and following the audit visit. Specific references are included in the relevant sections of the report.
- A site visit attended by the PMO, SSE Renewables Environmental Site Manager, RJM Design Management Engineer and SIC Planning Enforcement Officer undertaken on 1st September 2021 which included the following locations:
 - Kergord;
 - Sandwater Road;
 - Mid Kame Ridge;
 - North Compound and North Nesting;
 - Main Compound; and
 - Nesting.
- Discussions were held with the Geotechnical Clerk of Works (GCoW), Environmental Clerk of Works (ECoW) and Archaeological Clerk of Works (ACoW).
- Review of the storage of substances assessed under the Control of Substances Hazardous to Health (COSHH) Regulations 2002.

A selection of photographs taken during the audit are included in Appendix 1.

2.3 Site Personnel

The following site personnel were interviewed as part of this audit:

Company	Position
SSE Renewables	Environmental Advisor
RJ McLeod	Design Management Engineer
Tony Gee and Partners	Geotechnical Clerk of Works
MBEC	Environmental Clerk of Works
Headland Archaeology	Archaeological Clerk of Works

3. SITE SETTING, RECORDS AND OBSERVATIONS

Observations made during the audit are described in this section. Corresponding photographs are included in Appendix 1, alongside a plan of the site indicating the location of each photograph.

3.1 Kergord

3.1.1 Site Setting and Activities

Access to the Kergord Arrays is taken via the Kergord Access Track (KAT), which was accessed from the Sandwater track along the southern boundary of the central area of the development.

Activities in this area during the audit included progression of access tracks and peat restoration areas, rock extraction at borrow pits and formation of crane pad hardstanding areas.

3.1.2 Observations

Construction in the north of Kergord has extended towards N46, with ongoing preparation for peat reinstatement works. Surface water flow is controlled by cut off drain (example shown in Photo 1) which direct flow away from construction areas. The ditches are designed to ensure the flow of water towards ecologically sensitive environments is protected. The Principal Contractor and ECoW work together to identify ecological protection areas and micro site the track away from these.

At K43 the preparation for peat reinstatement was ongoing with good segregation noted. Silt traps are installed as construction progresses to manage runoff. A proactive approach to silt traps is being taken in anticipation of higher rainfall in coming months.

The PMO observed an area of reinstated peat adjacent to the track between N63 and N64. RJM confirmed that a 25-30m section of peat had slipped on a shallow gradient. The peat was reinstated in place to minimise damage by construction vehicles, in accordance with management principles set out in the CEMP. The peat slip did not result in any water pollution issues.

The ground works discussed in PMO009 in the area of Burn of Droswell had been completed and were viewed during the site visit. The water is directed through a gully and into a soakaway. The ECoW has monitored the tributaries of the Burn of Weisdale regularly during the reporting period.

The COSHH store in the Kergord array is used for the storage of maintenance oils and greases. Access to the store is controlled and the store is bunded. No evidence of leaks or staining was observed in the vicinity of the store, a spill kit and fire extinguishers were available. The store itself is also within an earth bund.

3.2 Sandwater Track

3.2.1 Site Setting and Activities

A track has been constructed at Sandwater, located at the southern limit of the central site area, which provides access to the Kergord and Mid Kame Ridge wind farm areas for all construction traffic. The new track is located adjacent to the existing Sandwater Road (B7095), which remains operational for public traffic. The Sandwater Loch is located directly to the south of the site boundary. Sandwater Loch is designated as a Site of Special Scientific Interest (SSSI)⁵, notified for 'Open Water Transition Fen' and 'Mesotrophic Loch' habitats.

⁵ As notified under the Nature Conservation (Scotland) Act 2004

3.2.2 Observations

Construction works on Pettawater bridge have continued with the pouring of concrete and planned steel work.

3.3 Mid Kame Ridge

3.3.1 Site Setting and Activities

The Mid Kame Ridge (MKR) is accessed from the Sandwater track and stretches northwards to Hamarigrind Scord. Track construction, reinstatement, crane pad hardstanding formation, installation of cable ducts and concrete blinding was being undertaken during the audit.

3.3.2 Observations

The bases in the area are being prepared for concrete pouring with a number of steel cages installed since the previous audit (example shown in Photo 5). The material for backfilling bases after concrete pouring is in place.

The peat reinstatement along Spur 18 is ongoing (P08 and P09), there are sections where the reinstatement of turves is awaiting installation of cabling. The peat restoration area at the north of Mid Kame Ridge is awaiting the final snagging review, it is anticipated that this area will be seeded by the end of 2021.

3.4 North Compound and North Nesting

3.4.1 Site Setting and Activities

The North Compound and northern Nesting turbine arrays are located towards the northern limit of the site on the eastern side of the A970. Activities that have been undertaken in this area have included the ongoing construction of Spurs 42 and 46. At the North Compound batching plant 1 and 2 are in place.

3.4.2 Observations

A drainage culvert was inspected in the vicinity of N93, the culvert utilised additional sediment retention measures during construction to prevent silt entering watercourses. This comprised a sediment trap and mat to slow the drainage and capture sediment (shown in Photo 4). A cut off drain upslope of the track directs water towards the culvert and minimises the sediment mobilised. The drain was strategically located to ensure a continued supply of water to the groundwater dependent terrestrial ecosystem downslope of the track. A water pump had been used to pump surface water through the culvert, the pump was integrally bunded and located on tertiary spill containment.

The North Nesting COSHH store (shown in Photo 3) serves the same purpose as the Kergord COSHH store, it is used for the storage of maintenance oils and greases. Access to the store is controlled and the store is bunded. No evidence of leaks or staining was observed in the vicinity of the store, a spill kit and fire extinguishers were available.

3.5 Main Compound and Nesting

3.5.1 Site Setting and Activities

The Main Compound is located at the southern extent of the development site, accessed from the A970. The lower level comprises car parking and site offices and welfare facilities. The upper level is in use for material and equipment laydown. The Nesting arrays are also accessed from this area.

3.5.2 Observations

The construction of the track for Spur 34 has been completed and is awaiting the installation of a bridge between N140 and N141. The tracks are floated where permissible within normal design limits, when the peat depths are over 1m, and to minimise the volume of peat excavated. The excavation of bases has extended to N119, with N117 being tested in preparation for concrete blinding.

There are a number of peat restoration areas within the array including along Spur 30, Spur 37 and at bases N144 and N148.

The Main Compound COSHH store (shown in Photo 7) is the main storage area for substances that have been assessed under the regulations. The stored materials included oils and greases. Access to the store is controlled and the store is bunded. No evidence of leaks or staining was observed in the vicinity of the store, a spill kit and fire extinguishers were available.

3.6 Communication with Clerks of Work

3.6.1 GCoW

Condition 39 of the planning consent requires the appointment of a Geotechnical Clerk of Works (GCoW) to minimise the risk of peat failure arising from the development. A video call was held between the PMO and GCoW prior to the site visit, on 20th August 2021.

The GCoW described the ongoing monitoring work across the site. This has included monitoring of the general construction works, monitoring peat restoration areas, reviewing the peat risk register, and providing advice on peat handling. The GCoW reported ongoing dialogue with RJM with the aim of ensuring all required approvals for identifying and extending peat restoration areas are in place prior to work commencing in specific areas of the site.

Peat restoration areas were reported to be progressing well, with the GCoW supporting the identification of suitable terrains where extensions are required.

The GCoW reported that the peat risk registers for all arrays have been completed by the principal contractor as have the geotechnical risk assessments.

3.6.2 ECoW

Condition 19 of the planning consent requires the appointment of an Ecological Clerk of Works to ensure protection of the natural heritage of the area. A discussion was held between the PMO and ECoW before the site visit, on 25th August 2021.

The ECoW continues to discuss micro-siting of the track where ecological features have been identified (example shown in Photo 8), these are raised with the principal contractor through a tracker. Ecological features are also marked out with poles ahead of construction, the lead ECoW has given two toolbox talks on how constraints are marked during the reporting period. It is anticipated the remaining bird constraints will be in place through September.

There is regular monitoring across the site which includes waterbodies, birds, peat, and water quality data. Additional monitoring or checks on site are undertaken as and when required, this includes monitoring of constraints whilst construction activities occur in the vicinity.

3.6.3 ACoW

Condition 29 of the planning consent requires the appointment of an Archaeological Clerk of Works to ensure archaeological features are protected and recorded during the development. A discussion was held between the PMO and ACoW prior to the site visit, on 20th August 2021.

An update on the archaeological watching briefs and monitoring that has been carried out since the previous PMO audit was provided, as summarised below:

- The planned route of Spur 45 around N96 was identified as passing close to a known archaeological feature, this was noted and rerouted in advance of construction.
- In Mid Kames, there is an ongoing watching brief around KBP01 based on known archaeological features in the area. There have been no finds at the location.
- In North Nesting there is an ongoing watching brief between N101 and N102.
- There is planned monitoring in South Nesting and Kergord based on the presence of archaeological features in the area, the routes have been planned to avoid known features.

3.7 Scope of next audit

The scope of the next PMO audit will be dependent on the specific activities undertaken at the development site in the preceding days and weeks. This is likely to include:

- Update on progress of construction works at Kergord, Mid Kame Ridge, Sandwater Road, North Compound and Nesting.
- Consideration of any comments received by the SIC or the Developer in relation to the works, including visits to view specific areas of concern.
- Update on the formation of peat restoration areas.
- Update on the construction of borrow pits.
- Updates from the ACoW, ECoW and GCoW teams.

4. AUDIT FINDINGS AND REQUIRED ACTIONS

Issue	Auditor Comments	Required Action	Action Owner	Status
Materials Storage and Handling (e.g. oil/fuel storage and peat/mineral soil storage and handling).	<p>Peat restoration areas are managed through the project Habitat Management Plan which balances the geotechnical and ecological objectives of the restoration.</p> <p>Potential risks relating to storage of peat are recorded on the PRRs and communicated to the Principal Contractor to allow mitigation/monitoring to be undertaken. The PMO will request evidence in future audits to confirm compliance with requirements for GCOW and ECOW approval of proposed peat restoration areas.</p> <p>The project COSHH stores are typically used for the storage of maintenance oils and greases. The stores were all locked and the assessment for each substance was readily available in each store. The stores were bunded and no leaks or staining was observed around the stores. The documentation reviewed during the site visit included safety data sheets and COSHH assessments. The precautionary storage measures identified in these documents were in practice on site.</p>	No action required.	N/A	Green
Natural and Built Environment (e.g. ecology, biosecurity, protected sites, archaeology and site restoration).	<p>Ecological constraints identified by the ECoW team are communicated to the Principal contractor and Developer to allow mitigation measures to be implemented and rescheduling of preparatory and construction work as required. These are also marked out by poles on the site.</p> <p>Watching briefs have been undertaken by the ACoW where potential archaeological constraints are identified. Where there are known</p>	No action required.	N/A	Green

VIKING ENERGY WIND FARM

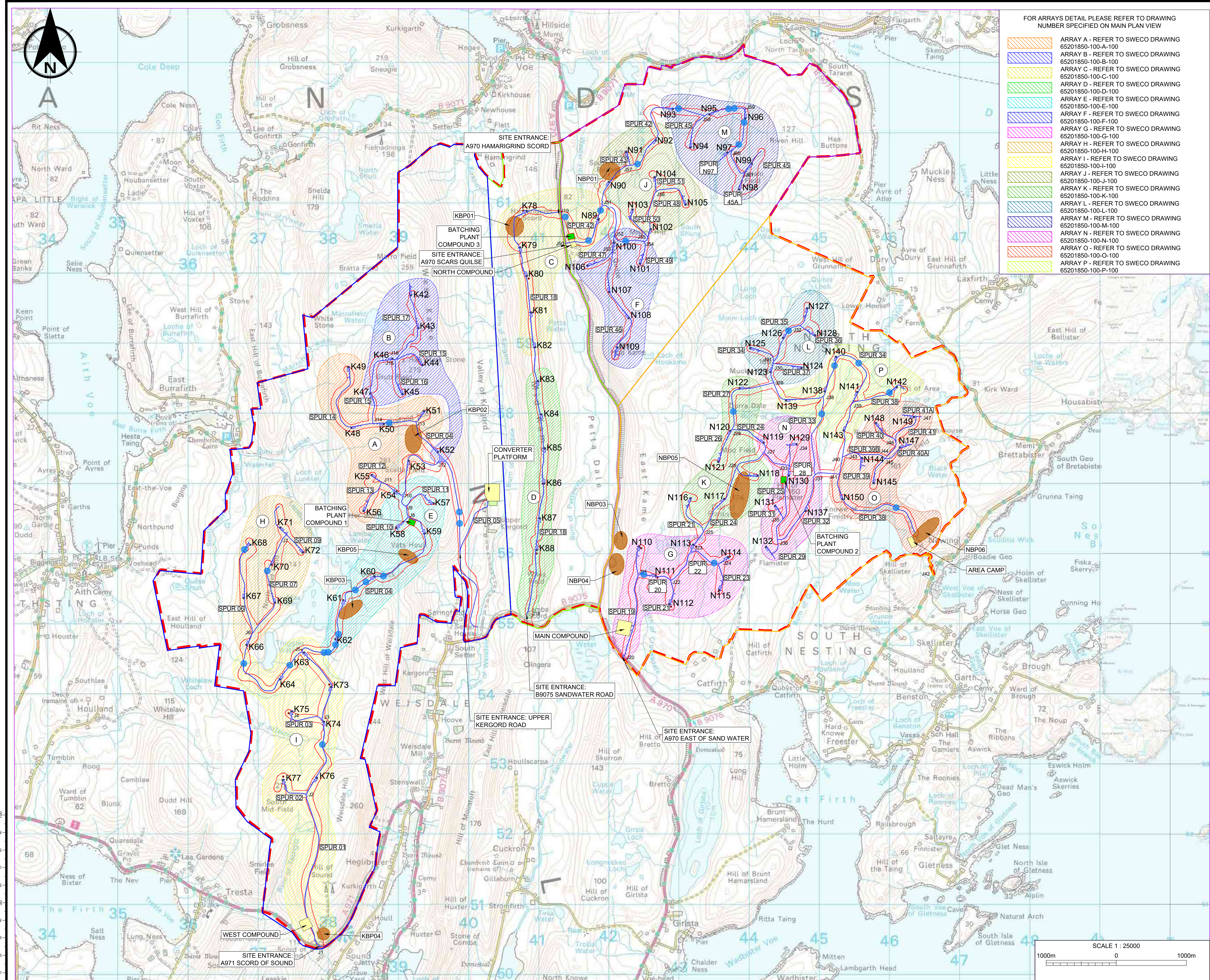
Issue	Auditor Comments	Required Action	Action Owner	Status
	archaeological features the track is micro-sited to avoid the feature.			
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	<p>The project has received authorisation to abstract water from eight locations from SEPA. The authorisation allows the water to be used for dust suppression. The PMO has reviewed documents confirming that the appropriate registration is in place with SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended.</p> <p>During the audit the PMO observed spill kits to be well stocked and readily available in areas where liquids are stored.</p>	No action required.	N/A	Green
Noise, Dust, and Air Quality	No dust complaints had been received during the reporting period and the PMO noted effective dust suppression measures in continual use throughout the audit.	No additional actions required other than continued monitoring of dust conditions and implementation of control measures as needed; and ongoing liaison as required with other construction operators.	N/A	Green
Resources, Waste and Transport.	The project manages wastes through a Site Waste Management Plan, the plan identifies the contractors transferring the waste and the disposal sites. Documents are retained in line with regulatory requirements.	No action required.	N/A	Green
Pre-Planning Works (e.g. site set-up and general management, access tracks, community liaison).	Evidence of pre-planning works observed and reported during the audit included pre-construction surveys, nesting bird surveys, and micro-siting of access tracks to account for constraints. Potential constraints are identified	No action required.	N/A	Green

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Issue	Auditor Comments	Required Action	Action Owner	Status
	and suitable mitigation measures implemented to prevent negative impacts.			

APPENDIX 1

SITE LOCATION PLAN AND PHOTOLOG



- FOR ARRAYS DETAIL PLEASE REFER TO DRAWING NUMBER SPECIFIED ON MAIN PLAN VIEW
- ARRAY A - REFER TO SWECO DRAWING 65201850-100-A-100
 - ARRAY B - REFER TO SWECO DRAWING 65201850-100-B-100
 - ARRAY C - REFER TO SWECO DRAWING 65201850-100-C-100
 - ARRAY D - REFER TO SWECO DRAWING 65201850-100-D-100
 - ARRAY E - REFER TO SWECO DRAWING 65201850-100-E-100
 - ARRAY F - REFER TO SWECO DRAWING 65201850-100-F-100
 - ARRAY G - REFER TO SWECO DRAWING 65201850-100-G-100
 - ARRAY H - REFER TO SWECO DRAWING 65201850-100-H-100
 - ARRAY I - REFER TO SWECO DRAWING 65201850-100-I-100
 - ARRAY J - REFER TO SWECO DRAWING 65201850-100-J-100
 - ARRAY K - REFER TO SWECO DRAWING 65201850-100-K-100
 - ARRAY L - REFER TO SWECO DRAWING 65201850-100-L-100
 - ARRAY M - REFER TO SWECO DRAWING 65201850-100-M-100
 - ARRAY N - REFER TO SWECO DRAWING 65201850-100-N-100
 - ARRAY O - REFER TO SWECO DRAWING 65201850-100-O-100
 - ARRAY P - REFER TO SWECO DRAWING 65201850-100-P-100

- ### NOTES
- CONTAINS ORDANCE SURVEY DATA RECEIVED FROM SSE ON 27.08.2020.
 - ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS IN METRES AOD UNLESS SHOWN OTHERWISE.
 - TURBINE LOCATIONS BASED ON: "VIKING MICROSITING TRACKER" DATED 24.07.2020.
 - ACCESS TRACKS AND HARDSTANDINGS BASED ON SSE LAYOUT: "S115056-TG-XX-XX-M3-C-1000_ALL_SPURS HARDSTANDS-P01". ARRAY LAYOUTS SUBJECT TO VALUE ENGINEERING DESIGN BY RJM.
 - FOR CULVERT CATCHMENT ASSESSMENT REFER TO SWECO DRAWING 65201850-100-101.
 - FOR CONSTRAINTS PLAN REFER TO SWECO DRAWING 65201850-100-111.

- ### LEGEND
- SITE PLANNING BOUNDARY
 - PROPOSED NEW TRACK
 - PROPOSED CONSTRUCTION COMPOUND
 - PROPOSED SUBSTATION COMPOUND
 - PROPOSED BATCHING PLANT
 - BORROW PIT SEARCH AREA
 - PROPOSED WTG LOCATION
 - AREA 1 - WEST (KERGORD)
 - AREA 2 - RIDGE (KERGORD CENTRAL)
 - AREA 3 - EAST (NESTING SOUTH)
 - AREA 4 - NORTH (NESTING NORTH)
 - PROPOSED WATERCOURSE CROSSING
 - 50m MICROSITING
 - SANDY WATER ROAD

0A	14.10.20	MINOR UPDATES	PL	RP	KS
0	17.09.20	FOR APPROVAL	BH	RP	KS
Rev.	Date	Amendment Details	Drawn	Chk'd	App'd

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FOR APPROVAL

VIKING WIND FARM

SITE GENERAL ARRANGEMENT
(177-0802-1001-000-00)

Scale	1:25000	Designed	RV	Drawn	RV	Checked	RP	Approved	KS
Original Size	A1	Date	11.09.20	Date	11.09.20	Date	17.09.20	Date	17.09.20
Drawing Number	65201850-100-100								0A



Photo 1. View from K46 of a cut off drain, the drain directs surface water to culverts under the track to minimise sediment transport.



Photo 2. View of peat reinstatement on Spur 14, the peat and turf is built up to the track level as construction progresses.

Title: Photographic Log	Client: Viking Energy Wind Farm
Site: Viking Energy Wind Farm	Date: 1 st September 2021



Photo 3. The COSHH store at the North Compound had no evidence of staining in the vicinity and it was provided with a spill kit.



Photo 4. View of the additional silt trapping measures at K93, drainage is designed to prevent silt entering existing watercourses.

Title: Photographic Log	Client: Viking Energy Wind Farm
Site: Viking Energy Wind Farm	Date: 1 st September 2021



Photo 5.

View of the steel work on Mid Kames Ridge in preparation for concrete pouring, the excavated area will then be backfilled.



Photo 6.

View of peat reinstatement on Spur 42 where the peat is in place and the turves are laid with a long-arm excavator.

Title: Photographic Log	Client: Viking Energy Wind Farm
Site: Viking Energy Wind Farm	Date: 1 st September 2021



Photo 7. View of the gravel around the Main Compound COSHH store, the area was free from staining and provided with a spill kit.



Photo 8. View of a Ecological Protection Area marked out by poles and signage with the track sites outwith the area.

Title: Photographic Log	Client: Viking Energy Wind Farm
Site: Viking Energy Wind Farm	Date: 1 st September 2021