Intended for
Viking Energy Wind Farm LLP

Date
November 2020

Project Number
1620009158

VIKING WIND FARM
PLANNING MONITORING OFFICER AUDIT REPORT 001

RAMBOLL

CONTENTS

1. AUDIT DETAILS

1.1 Audit Details

Audit Number	PMO 001
Location	Sandwater Road Kergord Access Track (northern area) Tributary of Burn of Weisdale north of Upper Kergord Farm
Weather Conditions	Mild (8°C), dry.
Audit Date	28th October 2020
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
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 Track[1] (consented on 29th April 2019).
- Re-alignment of Sandwater Road[2] 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).

[1] Shetland Islands Council Planning Reference No: 2018/096/PFF
[2] Shetland Islands Council Planning Reference No: 2019/079/PPF

- 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 2020R.

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); 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.

1.5 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.

[3] Shetland Islands Council Planning Reference No: 2019/188/PPF
[4] Shetland Islands Council Planning Reference No: 2019/210/PPF

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.

Prior to undertaking the October audit, the PMO liaised with the Council's Planning Enforcement Officer to ascertain whether the Council had received comments or complaints from the public regarding the construction works. The Planning Enforcement Officer advised that concerns had been raised relating to the effectiveness of silt mitigation measures in proximity to the Sandwater Loch and as such, this area was considered a priority for the October audit visit.

2.2 Scope of Audit

The scope of the audit was as follows:

- Review of information provided by the Environmental Clerk of Works (ECoW) and Archaeological Clerk of Works (ACoW) before and after the site audit.
- A site visit undertaken on 28th October 2020 which included the following locations:
  - Sandwater Road;
  - Kergord Access Track; and
  - Surface watercourse north of Upper Kergord Farm.

A selection of photographs taken during the audit is 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
MBEC	Environmental Clerk of Works

3. SITE SETTING, RECORDS AND OBSERVATIONS

Observations recorded during the audit are described in this section. Corresponding photographs are included in Appendix 1.

3.1 Sandwater Road

3.1.1 Site Setting and Background Notes

Sandwater Road (B7095) is located at the southern limit of the central site area, immediately west of the junction with the A970. The Sandwater loch is located south west of this junction, and 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.

Prior to undertaking the audit, the SIC Enforcement Officer had received a number of media enquiries and public complaints regarding the effectiveness of silt mitigation measures that were in place to protect the Sandwater Loch. It was reported that a heavy rainfall event had taken place on 22nd September 2020 which led to the failure of the mitigation measures and resulted in polluted surface water run-off entering the loch. Ramboll was provided with a copy of the incident report that was prepared by the Principal Contractor and a copy of an email confirming that the report was issued to SEPA on 22nd September 2020.

The Environmental Advisor explained that additional mitigation measures had been put in place following the rainfall event which are described in Section 3.1.2.

3.1.2 Observations

The PMO inspected the drainage channel on the northern side of the road between Culverts 2 and 5 and observed the culvert outflow points on the southern side of the road. Plugs attached to wooden stakes were observed adjacent to each culvert outflow, with each of these noted to be open during the audit (refer to Appendix 1, Photo 1,). The Environmental Advisor explained that the plugs were used to allow drainage originating from the development site to be diverted to Culvert 4, which is the main discharge point to the loch.

It was highlighted by the Environmental Advisor that repairs were required to the grout on the underside of Culvert 3, to prevent drainage run-off flowing underneath the culvert pipe following an incident on 24th October 2020 which resulted in silt flowing into the Sandwater Loch. Ramboll was provided with a copy of the incident report that was prepared by the Principal Contractor evidence that the incident was subsequently reported to SEPA by email on 27th October 2020. A member of site personnel was observed attending to this repair on the day of the audit and SSE confirmed via email that this task had commenced, with the northern side of the road completed on 30th October 2020, and the southern side (i.e. the side of the loch) scheduled for completion by Monday 2nd November 2020.

A waterlogged area of the proposed route of the new Sandwater Road was observed between Culverts 2 and 3. It was highlighted by the Environmental Advisor that this is an area where water accumulates. Additional shuttering was observed to have been installed along the fence line between this area and the drainage ditch along the north side of Sandwater Road, in response to the heavy rainfall event (refer to Appendix 1, Photo 2).

An area of ponded water was observed in the drainage ditch west of the access track (refer to Appendix 1, Photo 3). It was reported by the Environmental Advisor that water had previously

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

been observed to be 'bubbling' at the surface, following the aforementioned rainfall event, and was thought to be a groundwater spring. The 'bubbling' was not occurring during the PMO audit. It was reported that a pump will be used to divert the pooled surface water back to the settlement ponds located below the compound at the temporary access point on Sandwater Road. The PMO observed that a length of pipe had been installed in this area so that drainage run-off did not flow into the pooled water area, as well as wooden shuttering. This appeared to be providing an effective barrier with the down gradient drainage ditch (refer to Appendix 1, Photos 3 and 4). The separation of the development run-off in the ditch and the 'clean' groundwater is in accordance with measures set out in Section 10.2 of the CEMP.

Silt and mud were observed by the PMO on the road leading from the access point to the temporary Sandwater Road compound at the top of the hill, expected to be as a result of lorry movements entering and leaving the site (refer to Appendix 1, Photo 6). A wheel wash was not present on site, nor was a road sweeper. Condition 28 of the planning consent sets out the requirement for road cleaning to address the presence of mud, silt or debris on the road network. It is stated in Section 18.2 of the CEMP that a road sweeper will be employed where required and that a wheel wash will be installed at each of the construction compounds. The Environmental Advisor stated that the Principal Contractor had arranged for these items to be delivered to site. Following the audit, the PMO received confirmation that these had been received at the site on 29th October 2020. Monitoring of the road network will be undertaken by the Principal Contractor foremen, ECoW and SSE Environmental team on a daily basis.

During the audit, the PMO observed that lorries entering and leaving the site were sheeted in order to minimise dust generation.

3.2 Tributary of Burn of Weisdale

3.2.1 Site Setting

The Burn of Weisdale is located in the Valley of Kergord, flowing in a southerly direction towards Weisdale. Tributaries of the burn are located downgradient (i.e. to the east) of the Kergord Access Track. A crossing is located approximately 90 m north of Upper Kergord Farm from which the watercourse was observed.

3.2.2 Observations

This area was visited during the audit due to the discharge of discoloured (silty) water to the burn which was reported to have occurred on 1st October 2020. The ECoW reported the incident to both SSE and the Scottish Environment Protection Agency (SEPA) as is outlined in the CEMP and PPP.

An incident report was prepared by Tulloch Developments Ltd (Principal Contractor for construction of the Kergord Access Track). A copy of the report was provided by the ECoW to Ramboll for review following the site audit. At the time of the incident, a new culvert was installed beneath the Kergord Access Track to direct surface water away from the work area and silt fences were already in place downstream of the culvert. It is reported the discoloured water was caused by a combination of surface run-off from exposed mineral sediment on the northern side of the track and flow through the bedding of the culvert.

The ECoW reported that once the discoloured water had entered the Burn of Weisdale (i.e. from the tributary), the discolouration had dissipated within 100m.

Measures were put in place by the construction team following the incident to mitigate further impacts while the construction works were progressed. These were observed by the PMO during the audit. These included:

- The excavation of an additional settlement pond (refer to Appendix 1, photo 7).
- The erection of additional silt fences downstream of the access track (refer to Appendix 1, photo 8).
- Four check dams comprising clean stone were added to the impacted tributary to aid filtration of run-off (refer to Appendix 1, photo 9).

At the time of the audit the surface water in the tributary, both upgradient and downgradient of the crossing point was noted by the PMO to be clear.

3.3 Kergord Access Track

3.3.1 Site Setting

The northern end of the Kergord Access Track was visited during the audit, in proximity to its eventual connection with the track for the convertor station. The dedicated construction compound for the convertor station was located to the east. The compound is operated and managed by BAM Construction.

3.3.2 Observations

The construction of the Kergord Access Track was nearing completion at the time of the audit. One stretch of peat restoration at the northern end of the road was still to be undertaken.

During the audit it was noted that an additional filter drain had been constructed alongside the end of the Kergord Access Track (i.e. where the track connects with the adjacent BAM compound), north of Upper Kergord Farm (refer to Appendix 1, photo 10). It was reported that this was to avoid surface water run-off flowing onto the BAM compound. The Planning Enforcement Officer questioned whether this was in the planning consent and it was confirmed by SSE that this was a deviation from the approved design. The Planning Enforcement Officer stated that any deviations from consented plans must be communicated to the Council Planning Department and approved prior to construction.

3.4 Communication with ECoW, ACoW and GCoW

It is stated in the CEMP that monthly reports will be prepared by the ECoW to include records of changes that have been authorised to allow the development works to commence. The ECoW confirmed that monthly reports have been provided to SSE as required. The template of the document remains to be finalised. Ramboll will include a review of the ECoW monthly reports ahead of future visits.

The Lead Archaeological Clerk of Works (ACoW) advised the PMO that reports will be provided for activities undertaken as these as are completed. Draft reports are in progress for Archaeological monitoring at Kergord; Trial trenching at Kergord; trial trenching and excavations at Sandwater Road; and excavations at Mid Kame cairn.

Discussions with the Geotechnical Clerk of Works (GCoW) were not held as part of the October audit. The PMO advised via email that daily diary entries (as required in accordance with the CEMP) would be requested ahead of the next visit to understand the monitoring activities undertaken since the October audit.

3.5 Scope of next audit visit

The scope of the next PMO audit remains to be confirmed and will be dependent on the specific activities undertaken at the development site in the days and weeks leading up to the November visit, however the following aspects are likely to be included during the audit visit:

- Consideration of any comments received by the Council in relation to the works, including visits to view specific areas of concern.
- A review of corrective actions implemented as a result of the October audit (e.g. to confirm installation of wheel washes at construction compounds).
- Visits to a selection of active work areas. Based on the Principal Contractor's Monthly Progress Report, construction activities are planned to be taking place at Sandwater Road, the main compound and the Mid Kame Ridge.

4. AUDIT FINDINGS

Issue	Auditor Comments	Required Action	Action Owner	Status
Materials Storage and Handling	Silt and mud were observed on the road adjacent to the Sandwater Road temporary construction access. A wheel wash had not yet been set up at this construction compound and a road sweeper was not readily available. The presence of silt and mud on the road network presents a potential risk to the water environment, including the nearby Sandwater Loch. A Corrective Action was raised. HGVs entering and leaving this area were observed to be sheeted to minimise dust generation. The PMO received confirmation that a wheel wash and road sweeper have were received at the site on 29th October.	No further actions required. Road network around access points will be reviewed as part of the next audit.	N/A	Green
Pollution Prevention and Response (including use of spill kits, silt control, cement/concrete, dewatering, water resources)	Silt was reported to have entered the Sandwater Loch via Culvert 3 on 24th October 2020. The incident was reported to SEPA in accordance with the CEMP and PPP. Repairs were required to the grout surrounding the culvert to prevent an on-going a preferential flow pathway that cannot be controlled as part of the implemented drainage mitigation measures. The PMO received confirmation that repairs to the culvert were completed by 2nd November 2020.	No further actions required.	N/A	Green
	Improvements to the drainage/silt mitigation measures were observed, which were implemented in response to a heavy rainfall event which resulted in silt entering the Sandwater loch on 22nd September 2020. The	No specific additional actions other than to continue with ongoing monitoring of the silt mitigation measures.	N/A	Green

Issue	Auditor Comments	Required Action	Action Owner	Status
	siltation incident was reported to SEPA as per the requirements of the CEMP and PPP. The improved measures included the erection of shuttering along the waterlogged catchment area; diversion of 'clean' groundwater away from the drainage network; and erection of silt fences.			
	Additional silt mitigation measures were installed to control drainage diverted towards a tributary of the Burn of Weisdale, downgradient of the northern end of the Kergord Access Track. This was in response to discoloured/silty water entering the watercourse following construction of a new culvert and run-off from exposed mineral soil following a rainfall event. The incident was reported to SEPA by the ECoW. Improved measures included the excavation of an additional settlement ponds, erection of additional silt fencing and installation of check dams in the tributary. No additional issues were observed by the PMO during the audit.	No further actions required.	N/A	Green
Pre-planning Works (including site set-up and general management, access tracks, community liaison)	A filter drain was constructed as part of the northern end Kergord Access Track to assist with surface water drainage in the area and avoid run-off towards the adjacent BAM construction compound. This was not part of the approved planning consent.	SSE to ensure relevant information is retrospectively provided to the Council's planning department and that going forward appropriate liaison with the Council planning department is undertaken.	VEWF	Amber

APPENDIX 1
PHOTOLOG

Photo 1. Plug attached to wooden stake at Culvert 3

Photo 2. Shuttering along field edge between Culvert 2 and 3 where waterlogged ground is present

Title: Photographic Log	Client: SSE Renewables
Site: Viking Wind Farm	Date: 28/10/2020

Photo 3. View of ponded groundwater due to be pumped back to settlement pond.

Photo 4. View of pipe placed in drainage channel to allow surface run-off to by-pass ponded groundwater.

Title: Photographic Log	Client: SSE Renewables
Site: Viking Wind Farm	Date: 28/10/2020

Photo 5. Example of silt fences and clean stone in place to aid drainage in ditch to south of construction area on Sandwater Road

Photo 6. Mud observed on road at the temporary access point to Sandwater Road compound

Title: Photographic Log	Client: SSE Renewables
Site: Viking Wind Farm	Date: 28/10/2020

Photo 7. Area of temporary settlement pond downgradient of Kergord Access Track, in the vicinity of Burn of Weisdale tributary.

Photo 8. View of silt fencing beyond settlement pond, downgradient of the Kergord Access Track.

Title: Photographic Log	Client: SSE Renewables
Site: Viking Wind Farm	Date: 28/10/2020

Photo 9. View of Burn of Weisdale tributary containing silt fencing and stone check dams following incident on 1st October 2020.

Photo 10. End of Kergord Access track with filter drain on right hand-side of image, reportedly constructed to manage run-off that would otherwise flow towards BAM Construction compound in the distance.

Title: Photographic Log	Client: SSE Renewables
Site: Viking Wind Farm	Date: 28/10/2020