Intended for
Viking Energy Wind Farm LLP

Date
February 2021

Project Number
1620009158

VIKING ENERGY WIND FARM
PLANNING MONITORING OFFICER AUDIT REPORT 003: 2ND DECEMBER 2020 TO 26TH JANUARY 2021

RAMBOLL

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003: 2ND DECEMBER 2020 TO 26TH JANUARY 2021

Ramboll
5th Floor
7 Castle Street
Edinburgh
EH2 3AH
United Kingdom
T +44 131 297 2650
www.ramboll.co.uk

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1. AUDIT DETAILS

1.1 Audit Details

Audit Number	PMO 003
Location	Kergord Access Track and Spur 5 Sandwater Road Mid Kames Ridge Main Construction Compound Nesting Locations were accessed by SSE Environmental Advisor and SIC Planning Enforcement Officer. Live video calls were undertaken at each location to allow the PMO to observe the active work areas and work areas that had been progressed since the last audit.
Weather Conditions	Dry, snow cover, cold, (-3°C).
Audit Date	26th January 2021
Audit Period	2nd to 18th December 2020; and 11th to 26th January 2021 The site was closed over the festive period from 19th December 2020 until 10th January 2021 with no construction activities taking place during this time.
Audit Owner	Ramboll UK Ltd
Additional Comments	The PMO Audit was undertaken remotely as a result of revised guidance issued by the Scottish Government on 5th January 2021 whereby mainland Scotland moved from COVID Protection Level 4 to a temporary lockdown. Shetland Islands Council (SIC) agreed to the proposed remote audit, comprising live video links with attendance by SICs Planning Enforcement Officer as an alternative to a site visit audit on 22nd January 2021. The PMO provided an agenda to representatives of SSE and SIC in advance of the audit.

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 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).
- 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.

[1] Shetland Islands Council Planning Reference No: 2018/096/PFF
[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

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 Limitations of Audit

As described above, it was agreed with SIC that the audit would be undertaken virtually using a combination of live video links, drone footage, recorded video and photographs. In addition to these sources, the PMO relied on information provided by the Archaeological, Environmental and Geotechnical Clerks of Work and where required, cross referenced information with approved planning conditions and management plans to comment on compliance and identify where issues require further actions.

The audit was undertaken during a period when snow cover was present across much of the site which inhibited observations of the ground in places. Specific instances are highlighted in the relevant sections of the report.

1.6 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. As stated in Section 1.1, the site visit on this occasion was replaced by a virtual visit using live video links, drone footage, recorded video, photographs and discussion with the Clerks of Work and SSE Environmental Advisor.

Prior to undertaking Audit 003, the PMO liaised with the Council's Planning Enforcement Officer to ascertain whether the Council had received comments or concerns from the public regarding the construction works. No public comments had been received since the previous audit.

2.2 Scope of Audit

The scope of the audit was as follows:

- 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 tour, hosted by SSE's Environmental Advisor via live video links, and attended in person by SICs Planning Enforcement Officer, undertaken on 25th January 2021 which included the following locations:
  - Kergord Access Track (KAT) and Spur 5;
  - Sandwater Road (Ch.2000 – Ch.1500);
  - Sandwater Road (Ch.0 – Ch.400);
  - Mid Kame Ridge;
  - Main Compound; and
  - Nesting (N110 to N113).
- Discussions were held on site with the Geotechnical Clerk of Works (GCoW), Environmental Clerk of Works (ECoW) and Archaeological Clerk of Works (ACoW).

A selection of photographs were taken during the audit by the SSE Environmental Advisor, as requested by the PMO based on observations made during the live video links. These 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
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 recorded during the remote audit are described in this section. Corresponding photographs are included in Appendix 1.

3.1 Kergord Access Track (KAT) and Spur 5

3.1.1 Site Setting and Activities

The KAT is accessed from the existing Sandwater Road along the southern boundary of the central area of the development. Spur 5 is located in the western area of the site, leading from the KAT towards the location of turbine K52.

Beyond the junction at K52, the track will continue to the south and west along Spur 12 towards the borrow pit (KBP02). It was reported that an archaeological watching brief was carried out by the ACoW during excavations in this area between chainage (Ch.) 500 and Ch.1000[5] of Spur 5 due to the presence of a ruined croft and extensive historical field system. Further detail is provided in Section 3.8.3 of this report.

3.1.2 Observations

A walkover of the peat restoration area at Ch.400 of the KAT, leading on towards Spur 5 was carried out via live video link. Significant observations could not be made due to snow cover and limited phone signal in this area, however photographs were also taken by the SSE Environmental Advisor and provided to the PMO via email.

The PMO observed a series of culverts that had been constructed beneath the new track of Spur 5. Cut-off drains are located on the upslope side of the track to collect and divert surface water before it enters the working area, while drains for surface water from within the working area are located on the downgradient side of the track.

Three excavators were operating at the northern extent of the track at the time of the audit, which included trench excavation for the placement of a culvert. Construction of the road was progressing and it was noted that peat and mineral soils had been deposited to the side of the track (Refer to Appendix 1, Photo 1).

3.1.3 Environmental Incident

An Environmental Incident was reported on 21st January 2021, which was identified by the Principal Contractor's ECoW. Water containing silt was observed to be entering the Burn of Droswell. Three sources were identified:

- Water entering the burn from beneath the culvert at Ch.850 of the KAT.
- Water originating from the trackside ditch of the KAT through filter stones and silt fencing. Due to the steep topography, silt fencing was not effective in slowing down the water at this location to allow the sediment to settle effectively.
- Discoloured water entering the burn through a peat pipe (a natural conduit) 100 m east of the KAT at Ch.1300.

The cause of the incident was considered to be related to a temporary increase in traffic movements (dump trucks) on the KAT while peat was being deposited into the peat storage area. This resulted in disturbance to material previously placed to construct the track, with heavy

[5] Chainage (Ch.) refers to the distance measured/surveyed along the route of the KAT

rainfall and natural voids within the ground (peat pipes) meaning that the silt fencing and vegetation as mitigation measures were bypassed.

Remedial actions implemented included placing a bung in the culvert crossing at Ch.1300; silt fencing south of Ch.850 was cleaned and maintenance undertaken; and stone check dams were cleaned to provide additional capacity in the trackside ditch. Additional silt fencing was also installed to divert dirty water away from the peat pipe to allow filtration through existing vegetation (refer to Appendix 1, Photo 2).

The incident was reported to SEPA via telephone[6] on 21st January 2021 within three hours of the identification of the dirty water. Photographs showing the source areas and new silt fencing that was installed were included in the Incident Report[7] that was provided to the PMO. The Environmental Advisor confirmed that measures have been put in place to monitor heavy plant movements in this area during periods of heavy or consistent rain. Increased volumes of traffic are no longer expected in this area. The PMO concludes that the incident was dealt with and reported appropriately.

3.2 Western End of Sandwater Road

3.2.1 Site Setting and Activities

Since the previous PMO Audit, construction of the western end of Sandwater Road had progressed westwards towards the junction with the existing carriageway, and eastwards to join with the road as it is constructed from the east (referred to as the 'transition zone'). Active construction works were taking place between Ch.1400 to Ch.1500. Thick peat deposits are present in this area of the site and the GCoW was observed monitoring works in this area at the time of the visit.

3.2.2 Observations

At the western limit of the new road construction, drainage mitigation measures comprising a settlement pond and silt fences were observed via live video link. Mineral soil remained exposed along the final 50 m stretch of the road, prior to placement of stone which was still to be completed. The ACoW confirmed that a full-time archaeological watching brief was undertaken in this area. Records were logged on the GIS Trigger Map which was viewed by the PMO via video call on the day of the audit. The western extent of the road at the time of the audit is shown on Photo 3 of Appendix 1.

Peat was observed to have been reinstated along the northern side of the new road and topped with turves. The SSE Environmental Advisor reported that reseeding would take place in the spring. The ECoW reported on the reinstatement in this area in the four weekly report (refer to Section 3.8.2), noting that some areas of mineral soil and peat had remained exposed. This was not observed by the PMO, although snow cover was present at the time of the audit. The SSE Environmental Advisor confirmed that mineral soils are used to reprofile embankments, and are overlain with peat and turves as per the specification in the CEMP. Where turves are in short supply reseeding will be undertaken. Instances where the ECoW identified potential issues with reinstatement (such as at this location) were resolved at the time. The Peat Management Plan does not contain specific details relating to exposure of peat and mineral soils following reinstatement, although Section 6.2 does state that as per the Construction Environmental Management Plan (CEMP) that the ECoW (and GCoW) will ensure good practice principles are implemented and this includes reuse. Reinstatement should continue to be monitored by the

[6] An email report was not submitted on this occasion due to the recent cyber-attack experienced by SEPA which has affected internal systems, processes and communications.
[7] RJ McLeod, Environmental Incident Report Form ENV005, dated 26th January 2021

ECoW (and GCoW) and any required actions carried out by the Principal Contractor as soon as possible.

The previous PMO audit report (002) recorded details relating to the diversion of the lower section of the Burn of Swirtars that was carried out under CAR License CAR/S/1192211[8]. Further works to this watercourse, upstream of the previous work area, had been undertaken. The ECoW confirmed to the PMO that these works to divert the upper section of the burn were completed on 14th January and that supervision was implemented by the SSE ECoW and RJ McLeod ECoW.

A yellow hose was observed which was in use to temporarily divert dirty (silty) water from the area of the Upper Burn of Swirtars diversion route during excavation of the cutting at Ch.1450 towards a settlement pond (refer to Appendix 1, Photos 4 and 5). The settlement pond was frozen and covered with snow at the time of the inspection.

3.3 Eastern End of Sandwater Road (Ch.0 to Ch.1400)

3.3.1 Site Setting and Activities

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)[9], notified for 'Open Water Transition Fen' and 'Mesotrophic Loch' habitats.

Construction of the road has progressed between the Burn of Pettawater, westwards towards Ch.1400 which represents the start of the transition area with the western end of the road. Construction of the Bridge across the Burn of Pettawater is ongoing.

3.3.2 Observations

Live video links were viewed by the PMO comprising walkovers of the areas between the eastern end of the new road and the Pettawater Burn; and from the access point at the rock extraction area, past the Mid Kame Ridge and onto Ch.1400. Photographs of Culverts 2, 3 and 4 showing the condition at the time of the audit were also provided (refer to Appendix 1, Photos 6, 7 and 8).

During the audit construction of the eastern end of the road was ongoing via the placement of LECA (lightweight clay aggregate) fill between Ch.0 and the Pettawater Burn (refer to Appendix 1, Photo 9).

The construction of the bridge over the Pettawater Burn is subject to a CAR License[10]. A method statement for the works was prepared by RJ McLeod and submitted to SEPA by SSE on 25th August 2020. SEPA confirmed via email that the method statement had been approved on 26th August 2020. The PMO noted that steel was being positioned onto the eastern concrete bridge abutment during the audit. Concrete had also been poured to form the western abutment and site personnel were in the process of removing wooden shuttering from the cured concrete. Silt fencing was in place along the bank on both sides of the burn. Photograph 10 shows this area at the time of the audit.

It was reported that none of the culverts along Sandwater Road remain bunged (as was the case during previous audits) and a pump remains in place to divert dirty water from the roadside ditch back towards the catchment area upgradient of the road.

[8] Copies of the CAR License, the accompanying method statement for the works and correspondence with SEPA were provided to the PMO during the previous audit. No further documentation reviews were necessary.
[9] As notified under the Nature Conservation (Scotland) Act 2004
[10] The bridge crossing will be constructed in accordance with CAR License: CAR/S/1190764, dated 24th June 2020.

There was no rock extraction taking place at the time of the audit, however stone was being processed in this area for use in the construction of roads. The mobile crusher which was operating in this area during the previous audit had been moved to the main compound area. It was subsequently reported by the SSE Advisor that the final blast to complete the Sandwater Road cutting was on 3rd February 2021.

At the time of the audit, stone was being transported via dump trucks for the construction of the transition area of the road (i.e. between Ch.1400 and Ch.1500). The GCoW was observed to be monitoring the works in this area. Photograph 11 of Appendix 1 shows this work area at the time of the audit.

3.4 Mid Kame Ridge

3.4.1 Site Setting and Activities

The Mid Kame Ridge is accessed from the new Sandwater Road and stretches northwards towards Hamarigrind Scord. Drone footage, filmed on 25th January 2021, covering the length of the track from Ch.0 to approximately Ch.5000 was provided to the PMO prior to the audit to allow the extent of the track to be viewed. At the time of the audit, construction of the track had advanced towards peat restoration area P0809.

Peat restoration area P0809 comprises the revised boundary for two previously separate restoration areas (P08 and P09) with a total area of approximately 8 hectares, following a survey by the ECoW team. As outlined in Section 8.3.4 of the Peat Management Plan[11] (PMP), the aim of the restoration works is to re-establish vegetation cover on bare and shallow peat flats, with a longer term ambition of returning the habitat to a near 'active' condition, as far as is feasibly possible within the lifetime of the windfarm.

The report[12] presenting the findings of the survey undertaken by the ECoW team concluded that vegetation communities within original survey areas P08 and P09 are not GWDTEs and are not notable or sensitive habitat, as a result of factors such as erosion and grazing, and therefore suitable for restoration. The ECoW team report provided a list of recommendations and considerations to maximise the potential for successful restoration.

3.4.2 Observations

The drone footage confirmed that activities along the Mid Kame Ridge were limited to a localised work area at K86 and the peat restoration area at the north end of the track. Dump trucks were observed travelling along the track on the drone footage.

A live video link was set up at K86 on the day of the audit to observe the works taking place to excavation the hardstanding area for turbine K86. Peat had been removed from the excavation area and stone had begun to be placed to form the crane pad (refer to Appendix 1, Photo 12). The laydown area for the blades will be located on the opposite side of the track. Excavation of this area had not commenced.

It was not possible to establish a video link at the peat restoration area P0809 due to limited remaining battery life of the device being used to transmit the live video footage[13]. A second device was used to film a recording of the activity in this area which was provided to the PMO after the audit was completed, as well as corresponding photographs (refer to Appendix 1, Photos 13 and 14). The video showed four excavators working in the restoration area. Access tracks

[11] Viking Energy Wind Farm, June 2020: Peat Management Plan Stage 2: Pre-Commencement

[12] MBEC: Baseline Surveying and determination of the Appropriate and Final Peat Restoration Areas for RJ McLeod to Implement

[13] A short break was taken between visiting the Mid Kames Ridge and the Main Compound/Nesting areas to allow the device to recharge and enable further live video feeds.

have been formed which were in use by three dump trucks. Review of the ECoW report indicated that during formation of the restoration area, the revised boundary (as prepared by the ECoW team) was not followed. When this was identified, work was stopped and the correct area was demarcated with wooden stakes (refer to Appendix 1, Photos 15). Further details are provided in Section 3.8.2 of this report.

3.5 Main Compound

3.5.1 Site Setting and Activities

The Main Compound is located at the southern extent of the development site, accessed from the A970. Occupation of the Main Compound commenced on 17th December 2020. Site cabins with water and wastewater systems have been installed. Waste storage areas remain to be established.

The upper level of the Main Compound is not yet completed. This will comprise a laydown area for materials and fuel storage area. Further blasts are required to extract rock and allow formation of the laydown area. Extracted rock will continue to be crushed using the mobile crusher and used for construction of access tracks.

3.6 Nesting

3.6.1 Site Setting and Activities

The Nesting area is accessed from the A970, via the track that leads to the Main Compound. Construction of the track towards turbine N110 (Spur 19) has been completed, and works are progressing towards N112 and N113.

A peat storage area was in the process of being excavated in the vicinity of turbine N111. To date, this storage has not been utilised. Four excavators and three dump trucks were observed to be carrying out works to construct the road towards turbine N112. The track had also progressed towards turbine N113.

3.6.2 Observations

Freshly excavated peat was observed at the side of Spur 22 at the time of the audit. A member of the Principal Contractor team advised that this was part of ongoing reinstatement works. On the following day (27th January 2021) a photograph of the same area was provided to the PMO showing that the peat had been reinstated. More snow had fallen overnight which limited visual assessment of the area but this appeared to show that the peat had been appropriately reinstated as required. Photographs 16 and 17 show the area prior to and after reinstatement.

The Crookadale Burn culvert was observed and mitigation measures appeared to be in good condition. An additional culvert was reported to have been constructed which diverts clean water from a lochan identified upstream. This water course ultimately drains to the Burn of Crookadale.

Subsequent discussions with the GCoW revealed that a culvert had been damaged as a result of a bearing failure (i.e. movement of the underlying soil resulting in a foundation failure) during construction of the track. This culvert was not observed as part of the audit. It was reported that the culvert remained functional, that water continued to run clean through the culvert following damage and that this would be monitored regularly. Repairs will be undertaken when traffic movement in the area decrease.

Further details are provided in Section 3.8.1 of this report. Photograph 18 in Appendix 1 shows the area of the damaged culvert.

3.7 Update on Outdoor Access Restrictions

Following the previous audit, an amber action was raised relating to communication with the Community Liaison Group and Shetland Access Forum as set out in the Outdoor Access Plan and Recreational Management Plan.

SSE representatives attended the Community Liaison Group meeting on 19th January 2021 as outlined in the previous PMO report. A copy of the presentation slides prepared for the meeting, showing various aerial photographs of the site from drone footage, was provided to the PMO.

It was reported that representatives from SSE and the Principal Contractor would be attending the Shetland Outdoor Access Forum meeting on 2nd February 2021 to provide an update on the project and answer questions from the public. The PMO received confirmation that this meeting was held as planned. Any relevant details arising from the meeting will be provided in the next PMO audit report.

Given that the lines of communication specified in the Outdoor Access Plan and Recreational Management Plan are being progressed this action is considered to have been addressed and the amber action closed out.

3.8 Communication with Clerks of Work

3.8.1 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 as part of the remote audit on 26th January 2021.

The GCoW advised that a bearing failure had occurred beneath the floated track section of Array G, Spur 20 (Ch.400 to Ch.450) at Nesting. It was reported that "heave/shears extended laterally 25 m from the track". The failure resulted in damage to a culvert, the track and associated drainage (refer to Appendix 1 Photograph 20). The road was reformed with crushed rock and the downslope verges were reinstated with excavated soil. The Principal Contractor agreed to monitor this location to ensure no further excess movement occurs and the culvert and water crossing will be monitored for the presence of dirty/silty water. The Principal Contractor team discussed techniques that could be used to correct the damage, going forward the foreman and agent will walk ahead of the road construction and agree the techniques to be applied to suit the terrain. It was proposed to monitor water flowing through the damaged culvert and repair the structure when plant movement is reduced in this area. No adverse environmental effects (e.g. impacts to surface water) were reported, however the area will continue to be monitored.

Copies of the Peat Risk Registers (PRR) for Arrays A, C, D and G were provided to the PMO for review. The registers document the stability risks identified at each construction location, the specific mitigation measures to be implemented to address the risks, and assessment/monitoring dates with relevant observations recorded. The PRR for Array G was compared against the reported bearing failure. The potential for peat failure was not identified at this location and therefore no additional mitigation measures were proposed. The potential for localised peat flow/failure at the edges of the floating road was identified at Ch.160 to Ch.180 and mitigation measures were for the situation to be monitored and rebuild/reconstruct as needed. This aligns with the mitigation approach that has been taken for bearing failure at Ch.400 to Ch.450.

There were no Geotechnical Events reported during the audit period.

3.8.2 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.

Monthly reports are prepared by the ECoW for submission to SSE Renewables to document the works carried out. The December monthly report was provided to the PMO for review. The report documented construction activities and related actions carried out by the ECoW team from 30th November to 27th December 2020. It was noted that the site closed over the festive period on 17th December 2020.Pertinent points reported by the ECoW are presented below:

- Construction activities were undertaken at:
  - The KAT comprising snagging works on Burn of Droswell culvert crossing, peat reinstatement and construction of Spur 5;
  - Sandwater Road comprising ongoing monitoring of drainage, foundation work for Pettawater Bridge, rock blasting and extraction, construction of west end, Burn of Swirtars diversion;
  - Main Construction Compound including reinstatement works on track, rock blasting and stone extraction, hardstanding and cabin installation;
  - Nesting consisting of extension of Spur 19 and onto Spur 20 and temporary stockpiling of stone for use after festive shut-down;
  - The Mid-Kame Ridge comprising progression of track construction, reinstatement and formation of peat restoration area P08.
- Micro-siting was undertaken as part of the construction of Spur 20, beyond turbine N111 following the identification of a Groundwater Dependent Terrestrial Ecosystem (GWDTE). The route was demarcated using canes and the Principal Contractor designed an avoidance strategy. The ECoW reported that the track remained close to the GWDTE but that the construction of floating track and culverts in this area would assist in maintaining hydrological continuity.
- A further GWDTE was identified during a pre-construction survey on Spur 5 at Ch.950. The area was demarcated and the ECoW advised the Principal Contractor that this should be avoided.
- General tasks undertaken by the ECoW team were similar to those reported in the previous month such as daily visual monitoring of surface water courses; pre-construction surveys; regular monitoring of drainage; regular monitoring of existing construction drainage the western compound at Scord of Sound; informal 'mini toolbox talks'; checks on general environmental protection measures; providing comment of relevant method statements and risk assessments for proposed work activities; and attendance at weekly environmental meetings and relevant construction meetings. Specific activities related to the construction activities comprised and comprised the following:
  - Micro-design and demarcation of the diversion route for the lower Burn of Swirtars and supervision of the works (this was completed prior to the previous PMO audit).
  - Assessment of potential peat reinstatement areas with the Principal Contractor at Spur 5 of the KAT.
  - Detailed National Vegetation Classification (NVC) survey and peat condition survey and analysis for Peat Restoration Areas P08 and P09 (subsequently named P0809) on the Mid Kame Ridge. A separate report was produced providing key recommendations for the development of the area. A copy was provided to the PMO. The conclusions and recommendations of the survey are outlined in Section 3.4.
  - Regular monitoring of new culverts that have been constructed.
- Species and habitat surveys are carried out prior to construction works commencing (referred to as pre-construction surveys). Repeat surveys were undertaken in seven areas by the ECoW team on the basis that two weeks had elapsed since the original surveys had taken

place. These repeat surveys were completed at KAT (additional peat reinstatement areas); KAT Spur 5; Sandwater Road (mid-section not yet constructed); the Mid Kame Ridge beyond K79; Mid Kame Ridge Peat Restoration area P08 and 09; Spur 19 and 20; Spur 22 and 24 to borrow pit NBP05.

- Monitoring of the Burn of Pettawater and Sandwater Loch for signs of Eurasian otter activity. No activity was evident.
- Notable bird species are recorded by the ECoW when observed. During this reporting period, a short eared owl (*Asio flammeus*) was observed hunting in the Kergord Valley on one occasion.
- Monitoring of drainage mitigation measures was undertaken by the ECoW at the roadside ditch next to the Kergord Road which ultimately drains to the Burn of Weisdale. This was discussed further with the SSE Environmental Advisor. Mitigation measures were implemented prior to excavation of the western end of Sandwater Road which included stone check dams to catch silt runoff, and pumping of water to a temporary storage pond. Additional mitigation measures were installed by the Principal Contractor prior to the festive break comprising 'sedi-mats' which act as a sediment capture and filtration mechanism. The ECoW and SSE Environmental Advisor confirmed that field turbidity testing is carried out in the event that silt is observed in the Burn of Weisdale. No levels exceeding the trigger threshold have been recorded.
- , but during long periods of rainfall small volumes of silt have been carried through a culvert which ultimately drained to the Burn of Weisdale. As a result, occasional localised plumes have been visible in the watercourse which are reported by the ECoW to dissipate quickly. A pump is used when this occurs and regular monitoring is carried out by the ECoW and Principal Contractor.
- Monitoring of water from the culvert at the Burn of Crookadale (Spur 20) was undertaken by the ECoW to check for the presence of silty water. Silt run-off in this area is reported to have decreased associated with a reduction in heavy plant movements.
- It was highlighted that peat and vegetation management has been variable. For example, there were occasions where peat and mineral soils were placed on top of original vegetation at Sandwater Road resulting in turf which would not be suitable for reuse. It is stated in Section 6.2.4 of the Peat Management Plan that "contamination of excavated peat with mineral soil should be avoided as this can alter baseline drainage capacity, chemistry and nutrient enrichment and lead to the establishment of non-target vegetation". Safety Observation Reports (SORs) have been raised by the ECoW. This issue will be assessed by the PMO as part of the next audit.
- It was also suggested by the ECoW that reinstatement of turves at Sandwater Road could be improved to ensure bare mineral soil and peat is covered with reinstated turves. Examples observed by the ECoW are shown on Photographs 19 and 20 in Appendix 1. Subsequent discussions with the SSE Environmental Advisor confirmed that areas of reinstatement requiring further work were highlighted by the ECoW and addressed by the Principal Contractor team at the time.
- During formation of the peat restoration area P0809, it was noted by the ECoW that the revised boundaries (as per the revised mapping in the report) had not been adhered to, as an earlier version of the boundary was being referenced. Work was stopped and the revised boundaries were marked out. The ECoW team submitted a SOR given that this incident could have been avoided if the relevant plans had been used. This has not been flagged as an action given that the error was addressed promptly, however the issues encountered must be considered during formation of future peat restoration areas to ensure mistakes are not repeated.

It was concluded by the ECoW team that overall, the construction works during this period had progressed in an environmentally aware manner with aspects that could be improved including reinstatement related works and localised surface water control.

3.8.3 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 video call was held between the PMO and ACoW as part of the remote audit on 26th January 2021.

The ACoW shared the GIS Trigger Map with the PMO during the audit which is the main database for recording observations and progress throughout the construction works.

Archaeological watching briefs have been undertaken at the following locations since the previous PMO audit:

- Between Ch.500 and Ch.1000 of KAT Spur 5. This area required observation and monitoring due to the presence of a ruined croft and extensive historical field system. Findings were recorded on the GIS Trigger Map.
- The western end of Sandwater Road. No significant findings were recorded.
- Mid Kame Ridge. There is requirement for a watching brief along the entire length of the track due to this being recognised as a prominent landscape feature. The ACoW reported that full time watching briefs are not likely to be required during excavation of the turbine hardstanding areas on the Mid Kames Ridge given that there have been no significant findings recorded but that this would be confirmed with the Regional Archaeologist. Regular monitoring would however be undertaken as per the rest of the construction site.
- Spur 21, between the locations of turbines N112 and N113. No significant findings were recorded.

As per previous discussions, the ACoW advised that Regional Archaeologist is kept up to date on progress and findings during excavations via email which is in accordance with Condition 30 of the planning consent.

3.9 Scope of next audit

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 preceding days and weeks. This is likely to include:

- Update on progress of construction works.
- Summary of meeting with Shetland Outdoor Access Forum.
- Consideration of any comments received by the Council or SSE in relation to the works, including visits to view specific areas of concern.
- A review of the bridge construction across the Burn of Pettawater.
- Review of the set-up of the main construction compound.
- Review of soil storage and reinstatement items identified for ongoing improvement as set out in the ECoW report.

4. AUDIT FINDINGS AND REQUIRED ACTIONS

Issue	Auditor Comments	Required Action	Action Owner	Status
Actions carried forward from Audit 002				
Pre-planning Works (community liaison)	Concerns were raised by the SIC Outdoor Access Officer regarding the buffer zone limiting access around the construction works area and lack of communication with the general public via agreed lines of communication set out in the Outdoor Access Plan and recreational Management Plan. A meeting with the Community Liaison Group was held on 19th January 2021.	Relevant details following meeting with the Shetland Outdoor Access Forum to be shared with the PMO for inclusion within the subsequent report.	VEWF	Green
Actions arising from Audit 003				
Pollution Prevention and Response (silt control)	Discoloured water was reported to enter the Burn of Droswell on 21st January 2021 following a period of heavy rain. Three potential sources were identified and measures were implemented to rectify the issue including maintenance and installation of new silt fencing.	No specific additional actions. Regular monitoring to continue, especially after periods of increased rainfall, to ensure that new mitigation measures are effective.	VEWF	Green
Natural and Built Environment (reinstatement) Materials storage and handling (soil storage)	There is room for improvement with regards to the reinstatement of turves to ensure that the underlying peat and mineral soils are sufficiently covered and vegetation will become re-established. This issue will be assessed by the PMO during future audits.	It is understood that this has been highlighted by the ECoW and that on-site discussions have taken place as required. Reinstatement activities should continue to be monitored and appropriate protocols followed (e.g. undertaken toolbox talks) where this is considered by the ECoW to not meet expectations.	VEWF with assistance from ECoW team	Amber

Issue	Auditor Comments	Required Action	Action Owner	Status
Pre-planning works (access tracks)	A bearing failure occurred on Spur 20 which also resulted in damage to the track, a culvert and drainage.	Damaged culvert to be repaired. Proposed measures to avoid reoccurrence of this issue at other locations to be implemented (i.e. agree construction techniques to be used in accordance with the terrain). Liaison with the GCoW should also be undertaken.	Principal Contractor	Amber
Natural and Built Environment (reinstatement) Materials storage and handling (soil storage)	The placement of peat and mineral soils on top of vegetation has been reported in the last two ECoW reports (Weeks 21-24 and Weeks 25-27). This activity can result in the underlying turves becoming unsuitable for reuse. SORs have been raised by the ECoW with respect to this issue. This issue will be assessed by the PMO during future audits.	Consider the need for further training of site operatives with respect to this issue.	VEWF with assistance from ECoW team	Amber

APPENDIX 1
PHOTOLOG

Photo 1. Excavators at Spur 5, peat and mineral soils cast to the side of the track

Photo 2. New silt fencing east of KAT Ch.1300 to divert dirty water from peat pipe. (Photograph originally appended to RJM Environmental Incident Report Form ENV 005, dated 26th January 2021).

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021

Photo 3. Western extent of Sandwater Road.

Photo 4. Hose used to divert silty water from the Upper Burn of Swirtars to settlement pond

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021

Photo 5. Hose used to divert silty water from the Upper Burn of Swirtars. Settlement pond delineated by posts and frozen at the time of the audit.

Photo 6. Sandwater Road, Culvert 2

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021

Photo 7. Sandwater Road, Culvert 3

Photo 8. Sandwater Road, Culvert 4

Title: Photographic Log	**Client:** SSE Renewables
Site: Viking Energy Wind Farm	**Date:** 26th January 2021

Photo 9. Eastern end of Sandwater Road, excavators placing LECA clay aggregate on new road surface

Photo 10. Bridge abutments on the banks of the Burn of Pettawater. Silt fencing has been erected on both banks.

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021

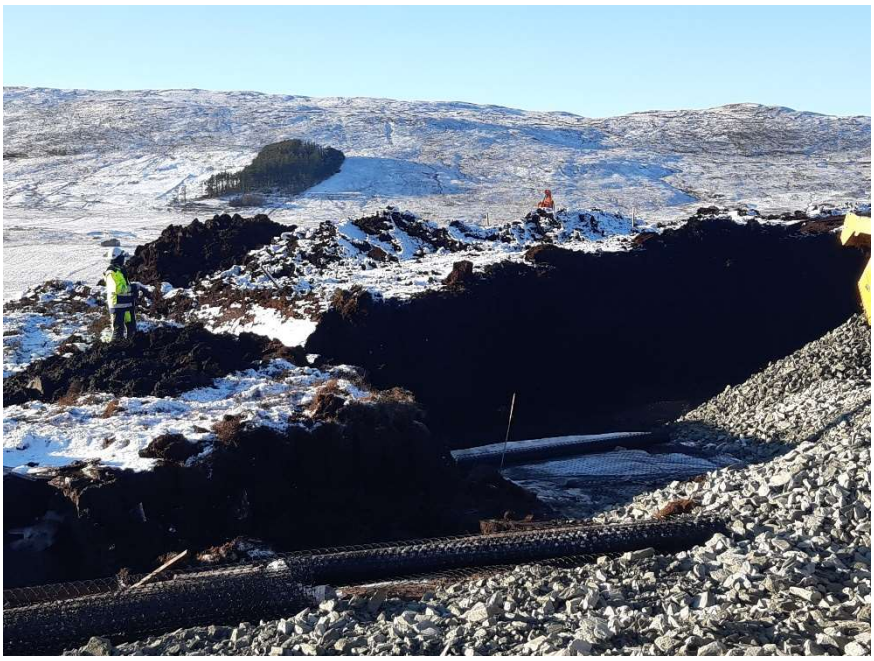

Photo 11. Transition area on Sandwater Road between Ch.1400 and Ch.1500.

Photo 12. Excavator forming the hardstanding for crane pad at K86 on Mid Kame Ridge

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021

Photo 13. Access track to peat restoration area P0809 on the Mid Kame Ridge

Photo 14. Excavators and dump trucks operating in peat restoration area P0809.

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021

Photo 15. Revised extent of peat restoration area P0809 demarcated by wooden posts.

Photo 16. Freshly excavated peat at Spur 22 (Nesting) observed during audit.

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021

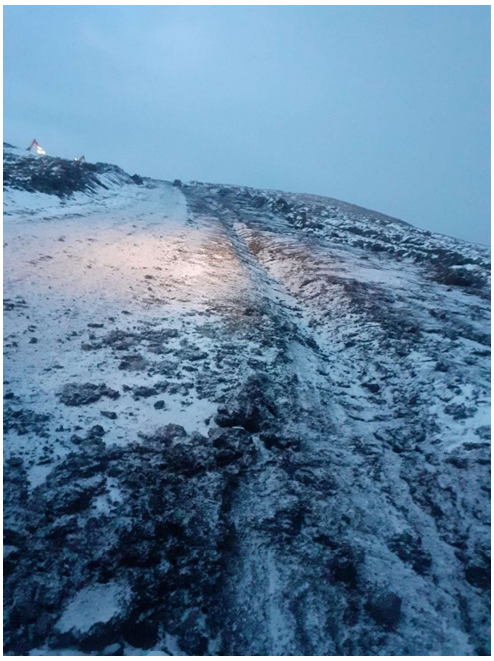

Photo 17. Spur 22 (Nesting) on 27th January 2021 following reinstatement of peat which had been excavated on the day of the audit.

Photo 18. Area of damaged culvert (reported in NCR on 22nd January 2021) following bearing failure on Spur 22.

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021

Photo 19. Peat placed on top of vegetation at Sandwater Road, rendering turves unsuitable for reuse. (Original photo included within MBEC Environmental Summary Report)

Photo 20. Mineral soils and mixed peaty material temporarily stored over vegetation, with turves potentially unsuitable for reuse. (Original photo included within MBEC Environmental Summary Report)

Title:	Photographic Log	**Client:**	SSE Renewables
Site:	Viking Energy Wind Farm	**Date:**	26th January 2021