Hill of Fare Wind Farm

Technical Appendix 2.1

Outline Construction Environmental Management Plan

Author	ITPEnergised
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Ref	

Contents

1 Introduction

1.1 Purpose of the Document

1.1.1 This Outline Construction Environmental Management Plan (oCEMP) refers to the construction of Hill of Fare Wind Farm (the Proposed Development) by Renewable Energy Systems Ltd (RES) (the Applicant). It details the best practice methods for managing the environmental impacts, including mitigation and monitoring, during construction of the Proposed Development.

1.1.2 The oCEMP will be updated and finalised post consent in line with all relevant planning conditions and in agreement with Aberdeenshire Council (AC), NatureScot and the Scottish Environment Protection Agency (SEPA).

1.1.3 The finalised CEMP will form part of the induction which is mandatory for all employees, contractors and visitors attending the site. All employees and contractors shall familiarise themselves with the content of the CEMP.

1.1.4 This document sets out the minimum standards to be adopted when constructing the Proposed Development. It also provides information about the associated Management Plans which should be read in conjunction with this CEMP:

- Outline Construction Methodology
- Health and Safety Statement
- Noise Management Plan
- Dust and Air Pollution Management Plan
- Pollution Prevention Plan
- Access Management Plan
- Traffic Management Plan

1.2 Aims and Objectives

1.2.1 The purpose of this oCEMP is to provide an overview of potential environmental impacts of the Proposed Development, during its construction phase, and describe the management and mitigation measures to protect the environment and sensitive receptors, both on- and off-site, and minimise potential adverse impacts on the environment. This document will be revised and updated as required post-consent to provide a finalised CEMP. This document has been produced to ensure individuals working on the site know their responsibilities and to ensure

that measures to prevent, reduce or mitigate potentially adverse environmental impacts identified in the Environmental Impact Assessment Report (EIAR) are carried out.

1.2.2 The objectives of this oCEMP are to provide:

- an overview of the Proposed Development construction impacts;
- guidance on compliance with relevant environmental legislation;
- a means of implementing appropriate mitigation measures for the key environmental issues;
- a working environmental management tool to follow during the construction phase of the Proposed Development;
- definition of roles and responsibilities of the construction team;
- a guide for the interaction with relevant government authorities and other relevant stakeholders, including the community, during the construction phase of the Proposed Development; and
- a basis for monitoring, reporting and maintaining compliance with regulatory requirements for the Proposed Development.

1.2.3 This oCEMP is a live document. The management strategies and control measures detailed within this document and the supplementary Environmental Management Plans will be reviewed and updated, where necessary, to reflect conditions requested by the planning authority, changes introduced by the Applicant's construction team, site specific outcomes, non-conformances and recommendations arising out of inspections, meetings and audits.

1.3 Roles and Responsibilities

1.3.1 As the Proposed Development is at the application stage, the oCEMP has been developed to provide advisory guidance and describes good construction practices. This is a live document and will ultimately be provided to the contractors appointed to construct the Proposed Development and will form part of the documentation required to ensure compliance not only with planning requirements but also environmental and other legislative requirements.

1.3.2 The oCEMP takes account of and refers to information contained within the EIAR.

1.3.3 The oCEMP will form part of the specification and contract for the works that the Applicant will impose on their contractors as contractual obligations.

1.3.4 The implementation of the oCEMP (including procedures, record keeping, monitoring and auditing) will be overseen by an Environmental Clerk of Works (ECoW) who will be appointed by the Applicant to ensure compliance with this document and current legislation.

1.3.5 It is envisaged that environmental management meetings will be held between the ECoW, the Contractor and the Applicant to report on environmental mitigation measures and performance and identify actions for improvement where necessary.

1.4 Project Status

1.4.1 As the Proposed Development has not yet been consented, some of the information provided in this oCEMP is necessarily general in nature. Task-specific method statements incorporating the requirements of this oCEMP will be developed by the selected contractors post-contract award and prior to works starting on Site.

1.5 Document Control

1.5.1 The CEMP is a "live" document and will be subject to periodic review and updating. The document is intended for use by the Applicant and their contractors specifically involved in the construction of the Proposed Development. When this document is amended, the document control table will be updated (**Table 1-1**) and it will be issued to all personnel specified on the distribution list below (**Table 1-2**).

Table 1-1: Document Control Table

Status	Date Issued	Prepared by	Summary of Alterations
Version 1.0	October 2023	ITPEnergised	Outline CEMP
XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX

Table 1-2: Distribution List

Organisation	Contact Name	Email	Telephone Number
Applicant – Renewable Energy Systems Ltd (RES)	TBC	TBC	TBC
Principal Contractor	TBC	TBC	TBC
Environmental Clerk of Works (ECoW)	TBC	TBC	TBC
Aberdeenshire Council (AC)	TBC	TBC	TBC
Scottish Environment Protection Agency (SEPA)	TBC	TBC	TBC
NatureScot	TBC	TBC	TBC
Historic Environment Scotland (HES)	TBC	TBC	TBC

2 Outline Construction Methodology

2.1 Introduction

2.1.1 This outline Construction Methodology has been prepared to provide the methods to be used in the construction of the Proposed Development. It includes details of the scope of works, structure, design strategy, programme and construction methods where available. This will be updated by the Principal Contractor prior to work commencing.

2.2 Project Details

2.2.1 The construction of the Proposed Development will include:

- Construction of site entrance;
- laying of new access track and watercourse crossing;
- establishing a temporary site compound;
- erecting the security fencing;
- Extraction of stone from borrow pits;
- trenching cabling;
- piling turbine foundations;
- erecting the turbines;
- constructing the substation and Battery Energy Storage System (BESS) compounds; and

- Site restoration.

2.3 Working Hours

2.3.1 The proposed normal construction working hours are anticipated to be prescribed by Aberdeenshire Council planning department, however as a guide the following times are suggested for construction activities except during the construction of the turbine foundations and turbine erection or periods of emergency work:

- Monday to Saturday: 07:00 to 19:00; and
- Sunday/bank holidays: no works.

2.3.2 Should any work need to be undertaken outside of the agreed hours, dispensation would be requested from AC prior to the commencement of such works.

2.4 Principal Contractor

2.4.1 The Principal Contractor is responsible for co-coordinating the activities of all other parties/contractors working on the site to maintain safe working practices, including:

- management and programme control of all design and construction interfaces, including those with the related contractors;
- assuming the role of Principal Contractor under the CDM Regulations;
- meeting the requirements of all relevant planning conditions;
- security and maintenance for the full development site including but not limited to the main site compound during the contract;
- providing appropriate welfare and site accommodation for all contractors working on site;
- management of all construction related traffic entering and leaving the site; and
- liaison with, in conjunction with the Applicant, all stakeholders and third parties including AC, NatureScot, SEPA, HES, relevant landowners, the Local Roads Authority and the Health and Safety Executive.

2.5 Site Compound

2.5.1 The Principal Contractor will establish the construction compound. This will house temporary portable cabin structures to be used as the main site

office and welfare facilities, including toilets, kitchen and provision for sealed waste storage and removal. The area will also be used for parking for vehicles, containerised storage for tools and small parts, and oil and fuel storage.

2.5.2 Typically, granular fill material and a compacted capping layer will be laid over geotextile to form the construction compound area and to provide a suitable platform for heavy plant.

2.5.3 It is anticipated that potable water will be brought to site for use as drinking water (by bowser). A high-level storage tank will be installed on Site. A suitably sized generator with integral bunded fuel tank will be located within the compound to provide temporary power during the construction period.

2.5.4 Welfare facilities will consist of a mess room, drying room/changing room and toilets provided by the Principal Contractor. Food and drink may only be consumed in the mess room to avoid risk of contamination and to minimise encouragement of rodents. Toilets will be served from the temporary water supply. The waste will be managed by use of sealed storage and removal from site, or by use of a septic tank and soakaway. Any septic tank discharge to the environment will be authorised by SEPA prior to use, in accordance with the requirements of the Controlled Activities Regulations (CAR).

2.5.5 All materials, plant and equipment shall be stored within the site boundaries within designated construction compound and laydown areas. Storage of liquids (e.g. fuel oil) and spillage mitigation measures are outlined in the Pollution Prevention section below.

2.5.6 All areas of the site including accommodation areas shall be kept clean and tidy with a regime of good housekeeping established to facilitate mobility of personnel and plant/equipment around the site and minimise potential hazards and vermin.

2.5.7 For the duration of the construction period an area will be set aside within the construction compound to accommodate road vehicles for the construction work force and site visitors. Parking road vehicles will not be permitted outwith the construction and enabling works compounds. Segregated areas and signage will be erected within the construction compound to protect the work force from moving vehicles. At the end of the working day all construction diggers, generators and dumpers will be

parked in a safe and secure area with appropriate security equipment fitted to the plant to minimise vandalism and unwanted attention from members of the public.

2.5.8 Traffic movements on local roads will be managed effectively to minimise the impact to local traffic journeys.

2.6 Site Works

Unexploded Ordnance (UXO)

2.6.1 Prior to ground disturbance works, risk of UXO will be re-assessed and UXO support utilised as required.

Access Tracks

2.6.2 The Proposed Development site will be accessed via an existing, albeit improved, access on the B977 and a system of new and improved access tracks will provide vehicular access to the turbines and other infrastructure locations. Approximately 17.6 km of access track will be constructed for the Proposed Development; this comprises 7.3 km of new track construction and 10.3 km of upgrade to existing access tracks.

2.6.3 The design of the access tracks has been developed to minimise track length, reduce environmental impact, shorten construction time, and minimise road-stone requirement. Subject to confirmation via a planning condition, an allowance has been made for new access tracks to be routed within a micro-siting allowance of up to 100 m, to allow for potentially unsuitable ground conditions or unforeseen environmental constraints identified by pre-construction surveys.

2.6.4 The access tracks shall have a typical average width of 4.5 m and will be constructed of compacted crushed stone. Access track widths may also be wider for short sections such as at passing places, at sharp bends or turning heads and junctions. A construction thickness of approximately 250 mm to 500 mm of compacted crushed stone will be applied. This will depend on the construction method and ground conditions established once ground investigation works are carried out.

2.6.5 Founded access tracks shall be constructed on the subsoil or on underlying bedrock. Dependent on ground conditions, a geogrid may be utilised to provide structural stability and a geotextile membrane installed to limit the migration of fines. The geogrid/geotextile shall be laid directly on the

subsoil. Floated access track sections will be constructed on the peat surface without any vegetation stripping or excavation of materials.

2.6.6 For founded access tracks, all of the upper topsoil layer, together with turves, will be stored separately from the rest of the subsoil in piles adjacent to, or near the access tracks for later reinstatement (for information on appropriate management of peat, where applicable, refer to oCEMP **Section 10** and EIAR **Technical Appendix 10.2**.). All soil will be stored in accordance with NatureScot guidance - Good Practice during Wind Farm Construction 4th Edition (2019), General principles for reinstatement of soils.

2.6.7 The access track and running surface will then be constructed by tipping and compacting crushed stone to a thickness which allows the required bearing strength to be achieved. This thickness will depend on the underlying ground conditions. The capping layer of stone will comprise finer material to provide a smooth-running surface.

2.6.8 The methodology of construction of the new and upgraded access tracks will be determined following ground investigations and agreed with SEPA.

2.6.9 Edge protection will be installed alongside the access tracks.

2.6.10 Following construction, the appropriate topsoil and vegetation shall be used to reinstate the track shoulders and turbine foundation areas. Excess soil, peat and turves will be re-used at suitable pre-determined locations on the site in consultation with the ECoW, avoiding double handling where possible.

2.6.11 Typical access track cross-sections are shown on **Figure 2.4** of the EIAR.

2.6.12 Borrow pits may be used to provide the stone for the construction of access tracks, compounds and hardstands, subject to sufficient quality and quantity of stone being available at the identified borrow pit search areas, as indicated on **Figure 1.2** of the EIAR. Final borrow pit locations within the borrow pit search areas would be subject to detailed ground investigations to confirm suitability of material.

2.6.13 There are local contractors near the Site from which concrete could potentially be sourced. However, if an on-site batching plant is required, a location for a temporary batching plant has been identified on **Figure 1.2** of the EIAR.

2.6.14 Sufficient signage will be installed on-site to clearly define the boundary of the works and to advise of any hazardous areas accessible to the public. Secure and appropriate boundaries shall be established to ensure that entry to specific hazardous areas of the site by unauthorised persons is prevented.

Watercourse Crossing

2.6.15 Environmental mitigation measures in line with standard good practice guidelines will be adopted during construction to prevent any pollution of the watercourses across the site.

2.6.16 The proposed site infrastructure requires one new watercourse crossing on vehicular tracks (**Figure 2.5** of the EIAR).

2.6.17 The design and installation of the crossings and culverts shall follow appropriate guidance from the following documents:

- SEPA, WAT-PS-06-02: Culverting of Watercourses Position Statement and Supporting Guidance v2 (2015);
- SEPA, WAT-SG-25: Engineering in the Water Environment Good Practice Guide - River Crossings (November 2010); and
- CIRIA (2010). Culvert Design and Operation Guide - Report C689F.

Turbine Foundations

2.6.18 Turbine foundations are expected to comprise gravity bases. The anticipated construction methodology is described below.

2.6.19 Prior to any excavations, the Principal Contractor will ensure that a suitable Sustainable Drainage System (SuDS) is installed to prevent silt pollution to the surrounding area. Once complete, the Principal Contractor will strip and set aside existing vegetation, and strip and stockpile topsoil from the affected area. They will then excavate subsoil and stockpile in accordance with best practice guidance, locating away from drainage paths and buffer zones to minimise the possibility of silt pollution.

2.6.20 Once excavation has been completed to foundation formation level, a layer of compacted crushed stone will be laid to provide a firm working surface. The binding concrete will be placed on this to provide a level work surface for the fabrication of reinforcement cages.

2.6.21 Next the steel reinforcement will be lifted into place and the cages will be established. Following completion of the cages, the Principal Contractor

will place concrete shutters and then commence first phase concrete pours. Once the concrete has cured to the specified strength, the shutters will be stripped and set aside for reuse. Electrical ducting will be included within the foundation to ensure cabling is not impeded.

2.6.22 The second phase reinforcement with turbine anchor ring will then be installed, followed by the placing of concrete shutters and second phase concrete phase pour. Once the concrete has cured to the specified strength, the shutters will be stripped and set aside for reuse.

2.6.23 The Principal Contractor will then backfill around the foundation from stockpiled materials ensuring materials are replaced in layers encountered during initial excavation. Topsoil will be placed to depths encountered during initial excavation. Turves will then be replaced where possible. Alternatively, the Principal Contractor will re-seed the area with an approved seed mix.

2.6.24 All earthworks, the storage and movement of materials and reinstatement will be undertaken in accordance with the PMP (refer to oCEMP **Section 11**, and the Outline PMP provided in EIAR **Appendix 10.2**).

Turbine Works

2.6.25 Turbine components will be transported to the site in accordance with the Construction Traffic Management Plan (CTMP) (refer to outline CTMP provided in EIAR **Chapter 11: Access, Traffic and Transport Assessment**).

2.6.26 Turbine component deliveries will be co-ordinated by the turbine supplier. Specialist haulage vehicles of varying length, dependent upon the component, will be used. The police will be in attendance to escort abnormal loads.

2.6.27 Delivery of turbine components will generally be timed to avoid transportation during peak times on Monday to Friday to avoid school and commuter traffic on the local roads.

2.6.28 Some turbine components may be pre-delivered and offloaded at the crane hardstandings or temporary laydown areas. Remaining turbine components will be delivered as just-in-time, to be lifted directly from haulage vehicles. This will be dependent on the final turbine supplier's method statements.

2.6.29 Adverse weather may delay lifting operations. If this is the case and components cannot be lifted just-in-time, suitable provision will be made for offloading on hardstandings, or laydown areas.

2.6.30 Turbine components will be lifted by adequately sized cranes (a large main crane and smaller tail crane) positioned and fixed as per the turbine supplier's method statements.

2.6.31 Upon completion of the erection, all anchor bolts will be tightened and the internal fit out of the turbine completed. The turbines will then be connected to the site's electrical cable network. Turbine testing and commissioning will be undertaken by specialist qualified and experienced engineers.

2.6.32 Adequate temporary lighting will be available for use after dark or in poor lighting conditions.

2.6.33 Upon completion of the erection of the turbines, the relevant records will be made available in hard copy, for review and incorporation into the Proposed Development's quality plan.

Maintenance

2.6.34 During construction, the access track network will be subject to regular heavy plant movements and as a result will likely deteriorate, develop pot-holes or ruts. Any areas which fail, suffer deterioration or rutting during construction will be restored as part of the ongoing maintenance obligation of the Principal Contractor.

Reinstatement

2.6.35 Reinstatement and restoration of the site will be undertaken as soon as practicable following the completion of each element. Following completion of construction works and when most of the heavy plant has left site, the Principal Contractor shall undertake final restoration works. Further detail is provided in the Outline PMP (**Appendix 10.2** of the EIAR).

3 Environmental Training

3.1 Inductions

3.1.1 All project personnel and sub-contractors will receive an Environmental Induction. No personnel, including sub-contractors, will be permitted to undertake any work on site without undertaking a Site induction. The site

induction will evolve to reflect changes in the CEMP as the project develops. Environmental topics covered in the induction shall include, but will not be limited to:

- Water Resources;
- Pollution Prevention;
- Emergency Response Procedures;
- Waste Management and Housekeeping;
- Management Structure;
- Duties and Responsibilities;
- Relevant Procedures;
- Ecologically and Ornithological Sensitive Areas and Times;
- Incident and Non-Conformance Reporting;
- Consents and Licenses and compliance;
- Legislation; and
- Environmental Good Practice.

3.2 Toolbox Talks

3.2.1 Toolbox Talks (TBTs) on specialised topics shall supplement the induction course. TBTs shall be used to highlight issues of concern and to disseminate any new information or responsibilities. They will also be used as a means of providing basic environmental training to crews on a specialised topic, e.g. water management. The TBTs also offer site personnel the opportunity to provide feedback. TBTs will be provided when:

- There is a change to existing legislation, which requires an operational change;
- Site inspections or audits have identified corrective actions which require rolling out;
- Work is being undertaken in particularly sensitive areas; and
- There are significant changes in environmental conditions, e.g. heavy rainfall.

3.2.2 Records of all TBTs undertaken, including attendance, will be maintained.

4 Outline Noise Management Plan

4.1 Overview

4.1.1 A Noise and Vibration Management Plan will detail the mitigation measures that will be implemented by the Principal Contractor to minimise noise impacts arising from activities relating to the construction of the Proposed Development.

4.1.2 All noise during construction will be managed under the UK Statutory Instruments that limit noise emissions of construction plant, including:

- guidance set out in BS 5228-1:2009+A1:2014 which covers noise control on construction sites;
- the powers that exist for local authorities under Section 60 of the Control of Pollution Act 1974 to control environmental noise on construction sites; and
- the adoption of Best Practicable Means (as defined in Section 72 of the Control of Pollution Act 1974).

4.1.3 All sub-contractors of the Principal Contractor will be formally required through contract to comply with the noise mitigation measures outlined below.

4.1.4 The following mitigation measures will be implemented by the Contractor to minimise noise impacts on noise sensitive receptors:

- Where it is reasonable and feasible, the quietest construction methods will be used. The Principal Contractor will aim to reduce all noise emissions, regardless of the threshold limits.
- The Principal Contractor's appointed Principal Designer will monitor construction activities at regular intervals to ensure that appropriate Personal Protective Equipment is being used by staff during activities identified by Risk Assessments.
- Site inspections shall be undertaken to ensure that plant is being operated with any specified acoustic covers in place. Any excessively noisy plant will be removed from the Proposed Development site for repair or maintenance.
- Local hoarding, screens or barriers to be erected as necessary to shield particularly noisy activities.
- Plant and equipment:

- All equipment will be switched off when not in use (including during breaks and down times of more than 30 minutes).
- The Principal Contractor will ensure that where possible, noisy plant will not be used simultaneously and/or close together to avoid cumulative noise impacts.
- Any compressors brought on to site to be silenced or sound reduced models fitted with acoustics enclosures.
- All pneumatic tools to be fitted with silencers or mufflers.
- All plant items to be properly maintained and operated according to manufacturers' recommendations in such a manner as to avoid causing excessive noise.
- All plant to be sited so that the noise impact at nearby noise-sensitive receptors is minimised.
- If required fixed plant will include a noise mitigation scheme to ensure that noise limits are achieved.
- Fixed and mobile plant used within the site during the construction period shall not incorporate bleeping type warning devices that are audible outwith the site boundary unless required for health and safety reasons.
- Where practicable, and required, noise from fixed plant and equipment will be contained within suitable acoustic enclosures or behind acoustic screens.

• Traffic and deliveries:
  - Where possible loading and unloading will be undertaken away from residences.
  - The majority of deliveries will be programmed to arrive during normal working hours only.
  - Care will be taken when unloading vehicles to minimise noise.
  - Construction traffic would be prohibited from unnecessary idling within the site boundary or at the site access points.
  - Night-time deliveries will be minimal and will only be undertaken with special consideration. Care will be taken to minimise noise when unloading vehicles.

4.2 Noise Complaints

4.2.1 The Principal Contractor's Site Environmental Representative (likely to be the Site Manager) will be the first point of contact for any queries and/or

grievances regarding the construction of the Proposed Development. They will be responsible for recording all queries and/or issues raised, for responding in an appropriate and timely manner, for monitoring any actions that require to be implemented.

4.2.2 The Contractor's Site Environmental Representative will be responsible for recording all complaints raised regarding noise, for liaison with the Contractor and construction staff, and for ensuring that appropriate action is undertaken. The Contractor's Site Environmental Representative will also be responsible for responding to the complaint and explaining the actions undertaken to address the complaint. A record of all complaints made and the actions taken will be maintained and will be available to Aberdeenshire Council Environmental Health Officer upon request.

4.2.3 Should a noise complaint be made to AC relating to noise emission from construction of the Proposed Development, the Contractor will, within 28 days and at their own expense, employ an independent noise consultant to measure the level of noise emission from the Proposed Development at the property to which the complaint relates. The Contractor shall obtain approval of the employment of the independent noise consultant by AC prior to the noise measurements being undertaken.

4.2.4 The Contractor will provide AC with the independent noise consultants assessment and conclusions (including all calculations, recordings and raw data) within three months of the date of the written request of AC.

5 Outline Dust and Air Pollution Management Plan

5.1 Overview

5.1.1 Construction dust can be generated from many on-site activities such as excavation and backfilling. The extent of dust generation will depend on the type of activity undertaken, the location, the nature of the dust, i.e. soil, sand, overburden, etc and the weather. Additionally, dust dispersion is influenced by external factors such as wind speed and direction and/or, periods of dry weather. Construction traffic movements also have the potential to generate dust.

5.1.2 It is anticipated that the following mitigation measures will be implemented throughout the construction period:

- Throughout construction best practice will be implemented to prevent pollution;
- The construction site layout will be designed to locate machinery and dust causing activities away from receptors where possible;
- The Principal Contractor will review the daily weather reports and communicate with the Section Engineers so that works can be planned to minimise effects on sensitive receptors; and
- The Principal Contractor will maintain a water bowser on site to suppress dust along the access tracks as required. If there is a risk of fugitive dust arising from the site works, water spray systems may be set-up to dampen down the material. The Principal Contractor will ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.

5.2 Transportation and Storage of Materials

5.2.1 The following mitigation measures will be implemented to limit emissions and dust creation from the transportation and storage of materials and from the movement of vehicles associated with the Proposed Development:

- The Principal Contractor will use a water-assisted dust sweeper(s) on the access tracks and local roads, to remove, as necessary, any material tracked out of the site;
- All vehicles entering and leaving sites will be monitored to ensure they are covered to prevent escape of materials during transport;
- A designated wheel washing system will be implemented if deemed necessary. This would contain rumble grids to dislodge accumulated dust and mud prior to leaving the site. The Contactor will ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits;
- The Principal Contractor will ensure fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery;
- For smaller supplies of fine powder, materials bags will be sealed after use and stored appropriately to prevent dust;

- Stockpiles will be covered, seeded or fenced to prevent wind whipping;
- Materials will be removed that have potential to produce dust from site as soon as possible, unless being re-used on site;
- The Principal Contractor will ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case it will ensure that appropriate control measures are in place; and
- The number of handling operations for materials will be kept to the minimum practicable.

5.3 Construction Plant

5.3.1 The following mitigation measures will be implemented to limit plant emissions and dust creation:

- All staff will operate plant and vehicles in accordance with the manufacturer's instructions. If possible, filters will be provided on plant anticipated to generate excess emissions. In addition, dust extractors, filters or collectors may be used;
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
- All plant and vehicles will be turned off when not in use and will not be left idling. The movement of vehicles around the site will be minimised where possible;
- Where possible, construction plant will be located away from the site boundary and from sensitive receptors;
- Use enclosed chutes and conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate; and
- Where reasonable and practical, the Principal Contractor will power plant through the use of mains or battery powered generators otherwise utilise diesel or petrol powered plant.

5.4 Air Quality Complaints

5.4.1 All dust and air quality complaints will be recorded, causes identified, appropriate measures taken to reduce the emissions in a timely manner and the results recorded by the Contractor's Site Environmental

Representative. The complaints log will be made available to the AC Environmental Health Officer, if required.

6 Outline Pollution Prevention Plan (PPP)

6.1.1 This outline PPP details the controls which, in conjunction with the mitigation measures outlined throughout the CEMP, aim to avoid pollution incidence. It also provides details of the measures to be implemented should a pollution event occur.

6.2 Legislation & Guidance

6.2.1 The legislation and guidance relevant to the Outline PPP includes but is not limited to:

- Control of Pollution Act 1974;
- Environmental Protection Act 1990;
- The Environment Act 1995;
- Control of Substances Hazardous to Health Regulation 2002;
- Clean Neighbourhoods and Environment Act 2005;
- Environmental Liability (Scotland) Regulations 2009;
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011;
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 – A Practical Guide Version 9.2 (SEPA, 2022); and
- Guidance for Pollution Prevention 21: Pollution incident response planning Version 1.1 (SEPA and wider UK equivalents, 2021).

6.3 Contacts

The following contacts within **Table 6-1** should be contacted in the case of an emergency by any member of staff:

Table 6-1: Emergency Contacts

Contact	Office hours	Out of hours	Address
Fire Brigade	999	999	
Police	01786 289070	999	

Ambulance/Hospital		999	
Community Automated External Defibrillator (AED)		N/A	

The following staff in **Table 6-2** should be contacted following any pollution incidence by the site operations staff:

Table 6-2: Pollution Incidence Contacts

Contact	Office hours	Out of hours	Address
Principal Contractor Emergency Response	TBC	TBC	TBC
Applicant's ECoW	TBC	TBC	TBC

The following (**Table 6-3**) should only be contacted by the Applicant's ECoW or the Principal Contractor's Site Manager as required following a pollution incidence.

Table 6-3: External Contacts for Pollution Incidence

Contact	Office hours	Out of hours	Address
SEPA		0800 80 70 60	
NatureScot		N/A	
Scottish Water			
Waste Management Contractor	TBC	TBC	TBC
Specialist Clean Up	TBC	TBC	TBC
Other	TBC	TBC	TBC

6.4 Potential Pollutants

6.4.1 This section of the Outline PPP provides details of the chemicals, products and/or wastes which will be used/created during the construction of the Proposed Development which could potentially cause a pollution incidence. **Table 6-4** will be continually updated throughout the construction period when potential pollutants are identified.

Table 6-4: Site Chemical, Product and Waste Inventory

Chemical/ Product/ Waste	State	Maximum volume on site	Location	Containment	Risk

Diesel	Liquid	TBC	Within vehicles	TBC	Flammable
Engine oil	Liquid	TBC	Within vehicles	TBC	Flammable
Hydraulic oil	Liquid	TBC	Within vehicles	TBC	Flammable
Cement	Power	TBC	TBC	TBC	Irritant
Black water	Liquid	TBC	TBC	TBC	Toxic
Paint	Liquid	TBC	TBC	TBC	Toxic
Cleaning fluid	Liquid	TBC	TBC	TBC	Irritant
Other	TBC	TBC	TBC	TBC	TBC

6.5 Pollution Prevention

6.5.1 Prior to construction commencing, the Principal Contractor will undertake testing of the PPP and will update and amend the PPP as required, with particular focus on:

- all watercourses, springs, boreholes or wells located within or adjacent to the development site and the direction of flow;
- site access for emergency vehicles;
- locations of soakaways receiving outflow; locations of fire hydrants and spill kits;
- locations for storage of materials; and
- locations of inspection points, oil separators, and locations suitable for portable storage tanks and/or drain blocking.

6.5.2 No significant quantities of hazardous substances are anticipated to be used during the construction works. However, some fuels and oils will be required to be present on the site.

6.5.3 Hazardous substance stores (including fuel and chemical stores) and stockpiles at risk of spillage / leakage of polluting materials will be provided with above ground secondary containment. Bunded compounds will have an impervious base, which can hold at least 110% of the capacity of the tank or drum it contains to minimise the risk of hazardous substances entering the drainage system or the underlying soils and / or groundwater.

6.5.4 All pipelines and fuelling points will be protected from vandalism and unauthorised interference and will be turned off and locked when not in use. Drip trays will be used when filling smaller containers from tanks or

drums to avoid drips and spills from entering the ground or drainage system.

6.5.5 Labels will be used to clearly indicate the contents of containers. There should be no storage of hazardous substances near open water or open drains. All fuel storage and associated pipework will be above ground and located on hardstanding.

6.5.6 Deliveries will be supervised, and spill kits will be available in areas where hazardous materials are used or stored. Any areas used for vehicle washing and / or parked vehicles shall include oil interceptors.

6.5.7 On-site vehicle routing will take into consideration the location of any storage areas to ensure that accidental impact does not occur.

6.5.8 Any temporary stockpiling of materials, if required, would be located away from open water and drains. Drums and barrels would be stored in designated bunded safe areas within the site compound to reduce the risk of silt and pollutants entering the surface water drainage system.

6.5.9 The following mitigation measures will be implemented to limit plant emissions and dust creation:

- All staff will operate plant and vehicles in accordance with the manufacturer's instructions. If possible, filters will be provided on plant anticipated to generate excess emissions. In addition, dust extractors, filters or collectors may be used;
- Cutting, grinding or sawing equipment will be fitted with, or used in conjunction with, suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
- All plant and vehicles will be turned off when not in use and will not be left idling. The movement of vehicles around the site will be minimised where possible;
- Where possible, construction plant will be located away from the site boundary and from sensitive receptors;
- The Principal Contractor will use enclosed chutes and conveyors, loading shovels, hoppers and other loading or handling equipment and will use fine water sprays on such equipment wherever appropriate; and

- Where reasonable and practical, the Principal Contractor will power plant with mains or battery powered generators otherwise utilise diesel or petrol-powered plant.

6.6 Pollution Response

6.6.1 The Principal Contractor will hold on site the following equipment to address a pollution incident:

- absorbents;
- drain mats/covers;
- pipe blockers;
- booms;
- plant nappies;
- drainage trays; and
- pumps.

6.6.2 Prior to commencing on site, all staff will undergo PPP training. This training will cover, but is not limited to:

- legal responsibilities of all staff;
- prevention of a pollution incident;
- response to a pollution incident; and
- location and correct use of response equipment and of PPE.

6.6.3 Details of the staff trained in the pollution incident response will be included within **Table 6.5**.

Table 6-5: Staff Trained in Pollution Incidence Response

Staff	Training	Date	Date of Training Update

7 Outline Water Quality Monitoring and Management Plan

7.1 Introduction

7.1.1 Construction of the Proposed Development will require activities to be undertaken near surface watercourses and/or peat deposits. Only one new watercourse crossing is required as part of the Proposed Development. This will require the construction of a new bridge over the Landerberry Burn. Surface water will be routed to drainage channels and runoff discharged back into greenfield areas.

7.1.2 This outline WQMP outlines the key issues pertaining to the construction of the Proposed Development and the mitigation measures proposed to reduce potential effects.

7.2 Key Issues

Watercourse Crossing

7.2.1 The Proposed Development requires the construction of one new watercourse crossing on vehicular tracks. The Principal Contractor will be responsible for submitting CAR applications to SEPA for the construction of the new crossing, as required. Following agreement, details of the applications will be appended to the final CEMP.

Runoff

7.2.2 Surface water runoff containing silt and other sediments, particularly during and after rainfall events, has the potential to enter the watercourses and field drains on and adjacent to the site. Silt and sediment laden surface water runoff is predicted to arise from excavations, exposed ground and any temporary stockpiles. This has the potential to temporarily impact on the water quality and hydrological and ecological function of the receiving watercourse at and downstream of the works in the absence of any mitigation.

7.2.3 Construction of permanent access tracks and hardstanding, and construction-phase movement of vehicles and plant, have the potential to result in soil compaction. This can lead to reduced permeability, increasing the potential for surface water runoff. Reduced permeability

could also reduce the flood storage capacity within the site and could potentially lead to localised flooding incidents.

Pollutants

7.2.4 Spills and leaks may mobilise oils, fuels and cement, which have the potential to be carried in surface water. These pollutants could be carried into watercourses, impacting on ecological habitats and freshwater quality. Untreated foul sewage from welfare facilities during construction has the potential to discharge directly into surrounding watercourses unless appropriately managed.

7.3 Mitigation and Monitoring

Good Practice

7.3.1 The Principal Contractor will abide by the Guidance for Pollution Prevention (GPPs) and Pollution Prevention Guidance (SEPA and wider UK equivalents, various dates) where still relevant, including:

- GPP 2: Above ground oil storage tanks (2021);
- GPP3: Use and design of oil separators in surface water drainage systems (2022);
- GPP 4: Treatment and disposal of wastewater where there is no connection to the public foul sewer (2021);
- GPP5: Works and maintenance in or near water (2018);
- PPG6: Working at construction and demolition sites (2014); and
- GPP13: Vehicle washing and cleaning (2021).

7.3.2 The Principal Contractor will abide by all CAR requirements (including the requirement to implement construction specific SuDS where required) and follow the guidance provided in Good Practice during Wind Farm Construction 4th Edition (NatureScot, 2019).

Monitoring

Pre-construction Monitoring

7.3.3 A programme of pre-construction surface water monitoring will be implemented, covering a period suitable to gather baseline data across more than one season (i.e. typically at least six months). Baseline monitoring will involve observations of site conditions, and sampling at

specified sample locations on the main watercourses on-site, including locations upstream and downstream of proposed construction works.

7.3.4 Indicatively, the monitoring programme will include testing samples for the following parameters, to be confirmed in a detailed WQMP and agreed with AC and relevant consultees prior to commencement of the programme:

- colour;
- pH;
- alkalinity;
- electrical conductivity;
- total suspended solids;
- nitrate;
- total oxidised nitrogen (TON);
- phosphate;
- sulphate;
- dissolved organic carbon (DOC);
- total organic carbon (TOC);
- biochemical oxygen demand (BOD);
- dissolved oxygen (DO);
- turbidity;
- aluminium;
- iron;
- ammoniacal nitrogen;
- manganese; and
- total petroleum hydrocarbons (TPH).

Construction Monitoring

7.3.5 Water quality monitoring will be undertaken monthly during the construction phase, by the Principal Contractor. The Principal Contractor will appoint a member of staff who is appropriately trained in water quality monitoring.

7.3.6 Regular (e.g. daily/weekly) inspections of watercourses close to construction activities will be undertaken by the Principal Contractor to identify:

- pollution risks that are unacceptably high;
- spillages or leakages;
- non-compliance with this CEMP;

- monitoring of over-pumping arrangements if required; and
- incidences of pollution.

7.3.7 The Principal Contractor will be responsible for recording the results of the regular inspections, recommending appropriate actions, and monitoring the implementation and outcome of such actions.

7.3.8 The Principal Contractor will be responsible for reporting to the Applicant if there are unacceptable alterations to the baseline. The Principal Contractor will be responsible for determining the cause of the alteration and implementing appropriate mitigation or changes to practices, to reduce/remove this change, if caused by construction activities.

7.3.9 Details of operational water quality monitoring will be provided within the Operational Environmental Management Plan (OEMP).

7.4 Watercourse Crossings

7.4.1 All watercourse crossings will be subject to detailed design in accordance with CAR. The detailed design for the watercourse crossings, and the requirements for CAR authorisations or licences will be agreed with SEPA prior to construction in order to ensure that impacts on fluvial geomorphology are minimised and acceptable to SEPA.

7.5 Drainage and Runoff

Operational Drainage Design

7.5.1 A framework for provision of suitable drainage for the development is provided in EIAR **Chapter 10: Hydrology, Geology and Hydrogeological Assessment**. The detailed design of the development will be incorporate this outline framework and will provide specific, detailed drainage arrangements. The detailed design of the drainage systems will be agreed with AC and SEPA prior to construction.

Construction Drainage

7.5.2 All works associated with earth movement or similar processes will be carried out in accordance with the BSI Code of Practice for Earth Works BS6031:2009.

7.5.3 Due to the location of the site, there is a high likelihood of rainfall throughout the year. Site management will check the local weather

forecast daily and ensure all staff are aware, in order to maintain pollution control and runoff in periods of rainfall.

7.5.4 If working platforms are required, they will be formed in such a way that surface water drains away from watercourses.

7.5.5 Temporary drainage systems will be used to alleviate localised flood risk and prevent the obstruction of surface runoff pathways. Where required, temporary attenuation ponds will be provided to reduce silted run-off from the access tracks entering watercourses. If flocculants are considered necessary to aid settlement of fine suspended solids such as clay particles, the chemicals used must first be approved by SEPA.

7.5.6 The requirement for dewatering will be minimised in all locations by the timely and efficient excavation of the foundation void and subsequent concrete pouring and backfilling.

7.5.7 Access tracks will be kept to the shortest length possible, and tracks will be designed to spread the load of plant and vehicles to minimise soil compaction and therefore potentially reduce surface water runoff.

7.5.8 To avoid unnecessary compaction and disturbance to site soils, working areas and corridors will be established and demarcated, with construction operatives appropriately inducted and trained to avoid work outside the designated work areas.

7.6 Pollution Prevention

7.6.1 Spill kits will be kept in all vehicles, and soakage pads and oil booms maintained in all work areas. This will enable the rapid and effective response to accidental spillages. All construction staff will be trained in equipment use.

7.6.2 All vehicle maintenance, fuelling and washing will be undertaken on appropriate impermeable surfaces away from watercourses in order to minimise the risk of leaks so to soil and surface waters. All construction and plant vehicles will be regularly maintained.

7.6.3 The Principal Contractor will develop a specific method statement to address the transport, transfer, handling and pouring of liquid concrete at foundations.

7.6.4 All operations involving concrete transfer between vehicles, or into vehicles will take place at least 30 m from watercourses or water bodies

to ensure cement, unset concrete and grout do not enter the water environment.

7.6.5 Concrete wash out will be within the construction compound. The Principal Contractor will ensure that this area is regularly cleaned, and the waste disposed. Concrete and wash out liquid will not be discharged into drains or watercourses on site or at compounds. Drainage will be collected and treated or removed to an appropriate treatment point or licensed disposal site.

7.7 Storage of Fuel/Chemicals

7.7.1 Stationary oil storage tanks, if required on-site, will be located above the 0.5% Annual Exceedance Probability (AEP) (1 in 200 year return period) flood level. Plant and material will be stored in safe areas above the 0.5% AEP flood level where practicable, and temporary construction works will aim to be resistant to flood impacts in order to prevent movement or damage during potential flooding events.

7.7.2 To mitigate potential pollution from chemical-contaminated runoff, all fuels and chemicals will be stored in accordance with best practice procedures. This will include a designated fuelling site at a safe distance from watercourses, and in appropriate impermeable bunded containers or areas. These containers/areas will be designed to capture any leakages, from a tank or associated equipment.

7.8 Untreated Foul Drainage

7.8.1 The welfare facilities will connect to a septic tank (subject to CAR authorisation if applicable) or self-contained storage tanks. The tanks will be emptied and maintained on a regular basis by a suitably licensed contractor.

8 Outline Waste Management Plan

8.1.1 It is not anticipated there will be significant quantities of waste from the proposed construction activities.

8.1.2 A Site Waste Management Plan (SWMP) will be kept on site, detailing how waste is managed.

8.1.3 Fully enclosed skips and other smaller containers will be used for all wastes on site. Separate skips, as detailed below, will be held on site to allow segregation of waste materials for recycling or recovery:

- general mixed non-hazardous;
- wood;
- metal;
- hazardous (special) – depending on the types of special waste generated, separate containers may be used;
- plastics; and
- inert construction waste.

8.1.4 All the legal documents to ensure the Duty of Care for waste will be kept on site during the construction of the development.

8.1.5 All waste leaving the site will be accompanied with a Waste Transfer Note (WTN) (for non-hazardous) or Special Waste Consignment Note (SWCN). These will be checked by the Site Manager to ensure that the following information is detailed:

- producer of the waste;
- site name and location;
- date;
- description of the waste (i.e. contents and volume);
- European Waste Catalogue (EWC) code;
- signature of the waste carrier; and
- name of disposal site.

8.1.6 Once complete, the WTN / SWCN will be signed by the Principal Contractor and a copy retained by the Site Manager.

8.1.7 SEPA will be notified a minimum of 72 hours prior to the transfer of Hazardous/Special waste. The Principal Contractor will confirm whether the waste carrier will undertake the appropriate notification.

8.1.8 Regular waste audits will be undertaken by the Principal Contractor to check for the following:

- containers are adequately signed;
- containers are being filled fully prior to uplift;
- there is no cross contamination of materials (e.g. hazardous and non-hazardous or wood and metal etc.);
- food and hazardous wastes are contained in covered containers;

- containers are fit for purpose – i.e. adequately sized and structurally sound; and
- waste documentation is being retained, e.g. WTNs.

9 Outline Ecology Management Plan

9.1 General Best Practice

9.1.1 The Applicant will appoint a suitably qualified ECoW prior to the commencement of any construction activities. The ECoW will be present and oversee all relevant construction activities as well providing toolbox talks to all site personnel with regards to priority species and habitats. The ECoW will also undertake monitoring works and deliver briefings to relevant staff and contractors as appropriate.

9.1.2 Within a 12 months period prior to construction commencing, the ECoW or other suitably qualified ecologist will undertake a pre-construction protected species survey to supplement and update the baseline survey information contained within the EIAR. The aim of this survey will be to provide up to date information in order to finalise required mitigation proposals, in addition to completing a final check prior to construction for protected species. The CEMP will be updated with the latest survey results and management requirements.

9.1.3 Plant and personnel will be constrained to a prescribed working corridor, thereby minimising damage to habitats and potential direct mortality and disturbance to species.

9.1.4 The construction compound, storage sites and access tracks will avoid, as far as practicable and within micrositing allowances, areas identified as being of ecological value by the ECoW.

9.1.5 Culverts will be designed to be adequately sized and orientated in the correct direction for wildlife in accordance with good practice.

9.1.6 Any trenches dug during construction and decommissioning operations will be covered at the end of each day. Alternatively, mammal ramps will be positioned in such a way that trapped mammals may be allowed to escape.

9.1.7 All exposed pipes and trenches will be checked each morning prior to starting construction activities. If trapped animals are found, the ECoW or

specialist animal handler will be contacted to remove any distressed animals.

9.1.8 Regular ecological toolbox talks will be given to all site personnel on the potential presence of protected species and any measures that need to be undertaken should such species be discovered during construction activities.

9.1.9 As part of the environmental toolbox talks given to site construction staff, the importance of adhering to speed restrictions and watching out for wildlife and grazing farm stock will be highlighted.

9.2 Breeding Birds

9.2.1 Further to or incorporated into the update surveys above, protection of breeding bird nests from damage and/or destruction during the breeding season will need to be ensured. Wherever possible, vegetation clearance will occur outside the breeding season (i.e. between October - February, inclusive), to ensure that no active nests are damaged or destroyed by the proposed works. This would include any areas of shrub clearance and vegetation removal for access tracks, compounds or turbine bases due to the populations of ground nesting birds on and around the site.

9.2.2 Unnecessary disturbance to habitats will be avoided by minimising the extent of ground clearance and other construction practices as far as practicable.

9.2.3 Where vegetation clearance and/or ground disturbance has to take place between March and August inclusive, any areas for tracks, material laydown, turbine bases and other infrastructure will be kept short and largely devoid of vegetation during the breeding season until construction is complete. This will be achieved by regular ploughing, mechanical cutting or strimming during the breeding season. It is recommended that the areas are initially ploughed in early to mid-March, and again in May if they have not been developed by that point. Between these times, the cleared areas will be visited by an ECoW, to check whether they have been colonised by nesting birds, with advice given on any restrictions these pose and whether further measures are needed to keep the vegetation under control and deter birds from nesting. These measures will be required for each breeding season during the construction phase.

9.2.4 The ECoW will undertake construction phase surveys of birds within the Proposed Development and will record information of breeding success as far as is possible (avoiding disturbance, and following relevant NatureScot survey guidance (SNH, 2017)). The data will be used with pre-construction baseline survey data and future data obtained during monitoring work to provide population information across each phase of the development.

9.3 Habitats

9.3.1 The ECoW will develop a Species Protection Plan (SPP) which will form part of the CEMP. This will be implemented by the Principal Contractor to ensure those areas of habitat that have been temporarily lost during construction are successfully re-instated after construction has finished.

9.3.2 In order to facilitate restoration, disturbed ground will be restored as soon as practically possible using materials removed during the construction of access tracks, excavation of cable trenches and wind turbine foundations. To achieve this, any excavated soil will be stored in such a manner that is suitable to facilitate retention of the seed bank. This will aid site restoration and help conserve the pre-construction floristic interest at the site. Access track verges will be allowed to re-seed naturally during operation.

9.3.3 An Outline Biodiversity Enhancement and Habitat Management Plan (BEMP) has been prepared and included as **Appendix 8.5** of the EIAR. The outline BEMP will be implemented during the construction and operation phases, and will focus on the enhancement and restoration of habitats including degraded bog .

9.3.4 The Outline BEMP will be further developed in consultation with NatureScot, SEPA and AC, with the detailed plan, including ongoing post-construction monitoring, to be agreed prior to commencement of construction.

9.4 Protected Species

9.4.1 As noted above, an SPP will be produced and agreed prior to construction commencing and then implemented during the construction period. The SPP will detail measures to safeguard protected species known to be in the area including bats, otter, and water vole, with reptiles included as a precaution.

9.4.2 Specific measures will be detailed in the SPP to be undertaken in the event of discovery of otter resting places (not identified during surveys during the EIA). Such measures will include demarcation of suitable exclusion areas, depending on the nature of the resting place (breeding or non-breeding), with construction activities in the vicinity to be avoided at dusk and dawn where possible, with advice from the ECoW. The site of the Proposed Development is such that, at this time, that the destruction of any newly identified resting place is considered unlikely to be required. However, should this be the case, NatureScot will be consulted and a development licence sought for the destruction of an otter resting place.

9.4.3 No obstacles/obstructions will be placed either in drainage ditches or bankside that may impede the safe passage of otters throughout the site, or obstruct access to any potential resting sites.

9.4.4 Working in the vicinity of identified active otter habitat will be avoided during the hours of darkness and within two hours after sunrise and two hours before sunset. This can be reduced to one hour between November and February due to limited daylight.

9.4.5 Any exposed pipe systems will be capped when not being worked and provide exit ramps provided for any exposed trenches or excavations (to prevent otters entering and becoming trapped).

9.4.6 All staff will be informed of the potential for otters on site and 10 mph speed controls within the Proposed Development site to limit the risk of road traffic accident mortality will be implemented.

9.5 Fish

9.5.1 In order to prevent pollution of watercourses and impacts on fish within the site (with particulate matter or other pollutants such as fuel), best practice techniques will be employed. These are outlined in the EIAR Chapter 8: Ecology Assessment and the Outline Water Quality Monitoring and Management section (**Section 7**) above.

10 Outline Archaeology Management Plan

10.1.1 A detailed Archaeology Management Plan including the following mitigation measures will be implemented.

10.1.2 A Written Scheme of Investigation (WSI) will be prepared and submitted to the planning authority for approval prior to any construction works

(including enabling works) commencing on-site. The scope of works outlined in the WSI will be implemented during the construction phase.

11 Outline Peat Management Plan

11.1.1 An Outline Peat Management Plan (PMP) is provided in EIAR as **Technical Appendix 10.2**.

11.1.2 This will be updated to a construction-phase PMP prior to construction commencing, to include additional information gained from detailed intrusive ground investigation works. Details of the updated PMP will be referenced within the CEMP.

12 Outline Traffic Management Plan

12.1.1 The following measures would be implemented through a Construction Traffic Management Plan during the construction phase of the Proposed Development. It would be agreed with Aberdeenshire Council prior to the commencement of construction work.

- Where possible, further detailed design processes would minimise the volume of material to be imported to site to help reduce HGV numbers;
- A site worker transport and travel arrangement plan, including transport modes to and from the worksite (including pick up and drop off times);
- A Traffic Management Plan to control the operation of the access junctions; All materials delivery lorries (dry materials) should be sheeted to reduce dust and stop spillage on public roads;
- Specific training and disciplinary measures should be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- Wheel cleaning facilities will be provided at both access junctions;
- Normal site working hours would be limited to between 07:00 and 19:00 (Monday to Saturday with no working on Sundays or public holidays);
- Provide construction updates on the project website and/or a newsletter to be distributed to residents within an agreed distance of the site; and
- All drivers would be required to attend a detailed induction prior to undertaking any works on the Proposed Development site.

12.1.2 Advance warning signs will be installed on the approaches to the affected road network. Information signage could be installed to help improve driver information and allow other road users to consider alternative routes or times for their journey (where such options exist).

12.1.3 The location and numbers of signs will be agreed post consent and would form part of the wider traffic management proposals for the Proposed Development.

12.1.4 Required journeys during operation are expected to be minimal and associated with maintenance of the site (including potential inverter replacement). Only commercial vans and private cars will visit the site.

13 Conclusion

13.1.1 The purpose of this CEMP is to ensure that all construction activities carried out at the Proposed Development are in a manner which minimises impact on the environment. This document has been produced to remind individuals working on the site of their responsibilities and to ensure that measures to prevent, reduce or mitigate potentially adverse environmental impacts identified in the EIAR and this CEMP are carried out.

13.1.2 The CEMP has been developed to advise of good construction practices and ensure they are adopted and maintained throughout the construction of the Proposed Development. As part of this, a framework for mitigating unexpected impacts during construction has been developed and is detailed within this CEMP.

13.1.3 The CEMP has been prepared to provide assurance to third parties that their requirements and expectations with respect to environmental performance are met, whilst providing a mechanism for ensuring compliance with current environmental legislation and statutory consents.

14 References

British Standards Institute (2009). BS 6031:2009 – Code of Practice for Earthworks.

British Standards Institute (2014). BS 5228-1:2009+A1:2014 – Code of Practice for Noise and Vibration Control on Construction and Open Sites.

CIRIA (2010). Culvert Design and Operation Guide - Report C689F. Available at: https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C689F&Category=FREEPUBS

NatureScot (2019). Good Practice during Wind Farm Construction. Available at: https://www.nature.scot/doc/guidance-good-practice-during-wind-farm-construction

NetRegs (various dates). Guidance for Pollution Prevention. Available at: http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/

Scottish Government (2011). The Water Environment (Controlled Activities) (Scotland) Regulations 2011. Available at: https://www.legislation.gov.uk/ssi/2011/209/contents/made

Scottish Government (2009). Environmental Liability (Scotland) Regulations 2009. Available at: http://www.legislation.gov.uk/ssi/2009/266/contents/made

SEPA (2010). SEPA Position Statement WAT-SG-25: Engineering in the Water Environment Good Practice Guide - River Crossings. Available at: https://www.sepa.org.uk/media/151036/wat-sg-25.pdf

SEPA (2015). SEPA Position Statement WAT-PS-06-02: Culverting of Watercourses Position Statement and Supporting Guidance v2. Available at: https://www.sepa.org.uk/media/150919/wat_ps_06_02.pdf

SEPA (2022). The Water Environment (Controlled Activities) (Scotland) Regulations – A Practical Guide. Available at: https://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf

SNH (2017). Recommended Bird Survey Methods to inform Impact Assessment of Onshore Wind Farms. Available at: https://www.nature.scot/doc/recommended-bird-survey-methods-inform-impact-assessment-onshore-windfarms

UK Government (1974). Control of Pollution Act 1974. Available at: http://www.legislation.gov.uk/ukpga/1974/40/contents

UK Government (2002). Control of Substances Hazardous to Health Regulation 2002. Available at: http://www.legislation.gov.uk/uksi/2002/2677/regulation/7/made

UK Government (2005). Clean Neighbourhoods and Environment Act 2005. Available at: http://www.legislation.gov.uk/ukpga/2005/16/contents

UK Government (2015). The Construction (Design and Management) Regulations 2015. Available at: https://www.legislation.gov.uk/uksi/2015/51/contents/made