Contents

2.0 Proposed Development Description

2.1 Introduction

This chapter of the Environmental Impact Assessment (EIA) Report describes the components of the proposed development for which consent is being sought, for the purposes of identifying and assessing likely significant effects. It includes details concerning the construction, operation, and decommissioning of the proposed development.

This chapter is supported by the following appendices:

- Technical Appendix 2.1 - Outline Construction Environmental Management Plan
- Technical Appendix 2.2 – Forestry Assessment
- Technical Appendix 2.3 – Outline Access Management Plan

A number of figures have also been prepared to support this chapter, to provide an overview of the key components of the proposed development.

2.2 Site Location and Description

The proposed development is located between the B9106 and B9018, approximately 7.5km[1] south of Buckie in Moray in north-east Scotland. The eastern part of the Site contains an extant planning permission for a 16-turbine wind farm called Aultmore Wind Farm, the consent for which is also held by Vattenfall.[2]

The application boundary of the Site is shown on **Figure 2.1.**

The Site is centred on NGR (E 345000, N 858400) and covers an area of approximately 2,400ha. The Site's current use consists of commercial forestry plantation, managed by Forestry and Land Scotland on behalf of Scottish Ministers.

The proposed development may include:

- up to 16 three-bladed horizontal axis wind turbines with a maximum blade tip height of 200m. The wind turbines would be nominally rated at 6.6MW.
- low to medium voltage external transformers and related switchgear at each wind turbine.
- wind turbine foundations measuring approximately 25m diameter.
    - hardstand areas for erection cranes at each wind turbine location.
    - Main crane hardstand measuring approximately 60m x 40m.
    - Ancillary crane hardstandings (x3) measuring approximately 10m x 10m.
    - Blade storage areas (blade fingers) measuring approximately 18m x 3m.
- a network of site tracks totalling 24.3km will be required, along with a new Site entrance from the public road network (B9016). The site tracks will include:
    - 15.9km of upgraded tracks, which are currently built to Forestry and Land Scotland specifications and approximately 3.5m wide;
        - Of this 15.9km, approximately 7.15km will comprise a "spine" road which runs from near the B9106 through to the crossroads between T8 and T7. The spine road will be

[1] Distance to approximate centre of Site boundary

[2] Planning reference 07/02375/EIA.

widened to 7m to allow for two way construction traffic to operate, whilst the remaining 8.75km will be widened to 5m.

- 8.4km of new tracks.
  - Of this 8.4km, approximately 2.0km will comprise a two-way continuation of the 7m wide "spine" road. The remaining 6.4km will comprise a 5m wide access track.

- 4 new and 3 upgraded watercourse crossings;
- up to 4 borrow pit search areas (dependent on availability of stone within the Site).
- a substation compound containing electrical infrastructure, control buildings, welfare facilities and a communications mast – **note two options are shown to provide flexibility for the grid connection but only 1 will be built.** The substation compound measures 100m x 200m.
- a battery energy storage system (BESS) compound, contained within the main substation compound. The battery energy storage system will have an indicative capacity of 115MWh and a peak power delivery of 50MW.
- a network of buried electrical and communication cables, running in ducts alongside the access tracks.
- A temporary batching plant compound measuring 50m x 50m.
- Two temporary construction compounds, each measuring 100m x 50m.
- The felling of approximately 158.8 hectares (ha) of commercial forestry to enable the construction of the proposed development.

The proposed development is expected to operate for up to 35 years, after which decommissioning, or repowering of the wind turbines and other infrastructure would be undertaken as required.

2.2.1 Proposed Development Layout

Figure 2.1 shows the proposed infrastructure layout of the development, and **Table 2.1** gives the proposed locations for each of the proposed wind turbines.

Table 2.1: Wind Turbine Coordinates (OS National Grid reference)

Turbine	Easting	Northing
T1	341786	857593
T2	341260	857229
T3	342327	857352
T4	341817	856987
T5	341449	856654
T6	345552	859023
T7	346369	859218
T8	347206	859399
T9	345970	858670
T10	346844	858869
T11	347456	859001
T12	346515	858415
T13	347673	858625
T14	346968	858193

Turbine	Easting	Northing
T15	347615	858212
T16	346972	857630

2.3 Proposed Development

Prior to the commencement of construction, a Construction Environmental Management Plan (CEMP) will be produced setting out in detail the individual items of works associated with the construction of the proposed development. A high level, outline CEMP is included in this EIA Report as **Technical Appendix 2.1: Outline CEMP.**

Outlined below is a high-level summary of the infrastructure that will form the proposed development. For the purposes of carrying out the assessments on construction activities within the EIA Report, the reasonable worst-case scenario has been used.

2.3.1 Wind Turbines

Consent is being sought for the installation and operation of up to 16 three-bladed horizontal axis wind turbines.

The specific turbine model has so far not been selected, however, to inform modelling and assessment, a wind turbine up to a maximum blade tip height of 200m above ground level has been assumed. Each of these turbines will have a generating capacity of 6.6MW. **Figure 2.2** shows the indicative dimensions of the proposed wind turbines.

Each of the wind turbines comprises of the following components:

- blades;
- hub;
- nacelle;
- tower; and
- external transformer.

The three blades attach to the hub to form the rotor assembly of the turbine. This is mounted to the nacelle, which contains the gearbox, generator, and associated control and monitoring equipment. The nacelle and rotor assembly are attached to the top of the tower, which itself is mounted onto a reinforced concrete foundation.

Wind turbine components are all pre-fabricated offsite, and then transported to the Site prior to construction. It is likely that the towers will consist of 4 or 5 steel sections, with the blades to be made of fibreglass. It is proposed that the tower, nacelle, and blades will be finished in a semi matte, pale grey colour (RAL colour 7035).

Wind turbines shall not carry any symbols, logos, or other lettering except where required under other legislation. However, it is proposed to add wind turbine numbers to the base of each tower to aid service engineers during the operational phase of the wind farm. These numbers would be up to 1m tall, 1m wide, and would be positioned up to 10m from finished ground level for visibility.

Each wind turbine will require a transformer, which is assumed to be located externally. The housing for the transformer would be positioned adjacent to the turbine tower and final dimensions would vary dependent on the final turbine model choice. Whilst it is possible that the transformer may be included internally, it is assumed at this stage that it will be external.

As all of the proposed turbines have blade tip heights exceeding 150m above ground level, Article 222 of the Air Navigation Order requires each turbine to be fitted with medium intensity steady red lights on the highest practicable point.

Chapter 14: Aviation and Radar outlines the details of a reduced lighting scheme proposed for the wind turbines, which has been agreed with the CAA, and **Chapter 6: Landscape and Visual** assesses the associated impacts of the aforementioned lighting scheme.

2.3.2 Wind Turbine Foundations

Foundations will be required to support the wind turbines. These are typically steel reinforced concrete structures built into the ground, which the turbines are bolted to. The exact form of the foundation required cannot be determined until a detailed ground investigation is undertaken. With regards to wind turbines, the foundations are generally either piled type foundations or gravity base type foundations.

For the purpose of this EIA Report, 25m diameter wind turbine foundations have been assumed.

Irrespective of the sub-structure, the above ground finish will consist of a 4.5-5.5m diameter foundation plinth protruded from the ground to support the turbine. It is proposed that a 2m wide maintenance path surrounds the plinth – connecting to either the adjacent access track or the crane hardstanding.

Figure 2.3a and **Figure 2.3b** present the typical design for both gravity type and piled type foundations.

2.3.3 Crane Hardstands

Adjacent to each turbine, an area of permanent hardstand approximately 60m x 40m will be constructed of compacted stone bearing directly on a suitable formation stratum for use by the erection cranes. The exact geometry and position of the crane hardstands will be dependent upon the wind turbine supplier's specifications, the cranes selected for erection, and the findings of detailed ground investigations prior to construction. An indicative crane hardstand arrangement is presented in **Figure 2.4.**

Additional temporary areas of hardstanding for ancillary crane pads, blade fingers and other activities may be constructed, dependent on the final arrangement for the delivery and erection of the turbine components. These details will be confirmed following the commercial tendering and selection of the wind turbine model to be used at the Site and following detailed design.

The construction of the crane hardstands would use the same method as the excavated access tracks.

Once the wind turbine erection has been completed, the temporary hardstand areas (as shown indicatively on **Figure 2.4**) would be reinstated following best practice methodology.

There would be the occasional necessity for the use of cranes during the operational phase of the proposed development. The 'Good Practice during Wind Farm Construction' guide recommends that crane hardstand areas are not covered with peat or topsoil. Therefore, the permanent crane hardstands would be left uncovered, which would ease maintenance activities and comply with best practice guidance.

2.3.4 Access Tracks

Approximately 24.3km of access tracks will be required for the proposed development as shown in **Figure 2.1**. This includes 8.4km of new tracks and 15.9km of upgrades to existing tracks. The access track layout has been designed in order to maximise the use and upgrade of existing tracks as far as reasonably practicable.

The construction method used for the construction of the tracks will be dependent on Site-specific conditions. The majority of the Site tracks will have a running surface of 5m wide; however, the Site has been designed to incorporate a wider spine road (7m wide) which comprises of 7.9km of upgraded existing tracks and 1.9km of new access tracks. This is to allow for two-way running of vehicles along the spine road.

However, for each road width, the access track 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. 14 full Abnormal Indivisible Loads (AIL) turning heads have been proposed as presented on **Figure 2.1**.

Full AIL turning heads are required to facilitate both forward and reverse delivery of wind turbine blades to each wind turbine location. It is proposed that these are retained as part of the permanent infrastructure as FLS will make use of them for ongoing forestry activities.

It is anticipated that all access tracks would be excavated with any overlying soil or peat material removed to a suitable formation strata from which the track would then be built in compacted stone.

Where the levels of peat exceed 1m in depth, the access tracks would be "floated" over the peat using geogrid. Typical access track construction details can be found in **Figure 2.5**, and the new Site entrance with the B9106 shown in **Figure 2.12**.

For safety reasons, marker posts may be placed in the ground by the edge of the access track in order to guide onsite vehicles during times of poor visibility.

2.3.4.1 Watercourse Crossings

New watercourse and ditch crossings have been avoided in the design of the access track layout as far as possible; however, there would be 4 new watercourse crossings required for the proposed Development (coordinates and details provided in **Table 2.2**). All of these new watercourse crossings are to allow access to the wind turbines, two are located outwith the forestry area where the new access track from the B9016 is located, and the other two are located within the forestry where the existing access track requires modification in order for the track to be suitable to allow for turbine delivery.

There are also 3 existing watercourse crossings that may require upgrading located within the main forest area on the main spine logging road running through the Site.

A buffer zone of 50m in accordance with the relevant guidance from SEPA will be maintained around watercourses. The exceptions to these buffers will be where the existing access tracks are located within the buffer zone and where there are watercourse crossings.

Watercourse crossings will be designed to ensure that fish and mammal movement is not restricted. Applications will be made to SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) for authorisation of the various watercourse crossings. An example design of a typical watercourse crossing is presented in **Figure 2.6.** Further information on watercourse crossings is provided in **Chapter 10: Geology, Hydrology and Hydrogeology,** and in **Technical Appendix 10.5: Watercourse Crossing Assessment.**

Table 2.2: Watercourse Crossings

Watercourse Crossing ID	Type	Easting	Northing
WX01	Existing	346693	859976
WX02	Existing	346920	859901
WX03	Existing	346867	859782
WX04	New	340441	856560
WX05	New	340458	856555
WX06	New	343131	858048
WX07	New	345659	859152

2.3.5 Public Road Access

The proposed development will be accessed via a new access junction from the B9016. See **Figure 2.12** for details.

Wheel cleaning facilities will be set up at an appropriate location to remove mud from the wheels of vehicles leaving the proposed development. Public roads will be inspected daily, and a lorry-mounted road brush will be employed to remove any mud or debris transferred onto the roads from onsite activities.

2.3.5.1 Description of Abnormal Access Load Route

The most likely delivery port for the AIL components will be the Port of Inverness. From the port the AILs will travel along Stadium Road and onto the A9, then onto the A96 before travelling eastwards until the junction with the B9006 at Brackley. From here AILs will travel along the B9006 / B9090 through Cawdor, then onto the B9101 before crossing the A939 and continuing to Auldearn. From Auldearn the AILs will turn left onto the B9111 for a short distance before rejoining the A96 and continuing east until Fochabers, where the AILs will take the A98 for approximately 5.8km whereupon the AILs will turn onto the B9016 and head south to the newly constructed Site entrance.

Buckie harbour was considered as a potential delivery harbour but is not currently suitable for the delivery of any loads with the exception of the nacelles due to the way the harbour is set up and the working space around it. It is understood that additional development work is being undertaken at Buckie to support offshore wind farms, and Buckie as a delivery option will be kept under review.

Deliveries of AIL will be restricted to outwith Broadley Crematorium's operational hours to minimise disruption.

Further details on the AIL route and an access study are found in **Chapter 11: Traffic and Transport** and **Technical Appendix 11.1: Abnormal Load Route Assessment.**

2.3.6 Onsite Cabling

The wind turbines expected to be used on the proposed development would initially generate electricity at 690 – 1000V. This typically needs to be stepped up to the onsite distribution voltage of 33kV via the ancillary transformer, as mentioned previously. Each turbine will be connected to the substation compound via underground electrical cables. Cable trenches will accommodate these electrical cables and will also include communication cables and the earthing cable network. **Figure 2.7** presents the typical cable trench cross section that will be adopted across the Site. Where cables need to cross access tracks or hardstands they will be routed through ducts. The layout of the cable trenches within the Site would typically run adjacent to the access tracks where possible. The route would be marked above ground with clearly identified posts, spaced at suitable intervals along the length.

2.3.7 Substation and Battery Energy Storage System Compounds

A substation compound is necessary to distribute the generated electricity into the electricity grid system. Two locations are proposed in the EIA to provide flexibility around grid connection, but only one will be constructed for the project[3]. The two proposed locations are shown on **Figure 2.1** and will have approximate dimensions of 200m x 100m. The substation compound will be constructed from compacted stone, on top of reinforced concrete foundations for the buildings and ancillary equipment.

[3] Discussions with the TO have indicated that a connection into the existing Blackhillock – MacDuff line is the current offer from SSE, but a connection to Keith is also under consideration. If the Blackhillock – MacDuff line is confirmed then the easternmost substation will be built. SSE will be responsible for a separate grid connection planning application.

The substation compound would contain 33kV/132kV step-up transformers, associated switchgear, battery energy storage system and ancillary equipment suitable for a transmission connection to the electricity grid system. The wind farm control building required at the substation compound would accommodate metering equipment, switchgear, the central computer system, and electrical control panels. It is anticipated that the Transmission Operator will also require their own control building. In addition to the control buildings a welfare building will be installed for all personnel.

Figure 2.8 shows an indicative substation compound layout and elevations. The design and layout are subject to change once the expected point of connection is determined.

2.3.7.1 Battery Energy Storage System

In order to help match the Site electricity generation to network energy demand, and to minimise potential grid constraint requirements, the proposed development will also include a battery energy storage system (BESS).

The BESS compound is proposed to be 73m x 47.5m and will be located within the main substation compound area. It will be constructed of compacted stone bearing directly on a suitable formation strata, including reinforced concrete foundations for the building and ancillary equipment. Within the BESS compound, permanent containers mounted on concrete foundations would contain an energy storage device, inverters, and other ancillary equipment. A transformer would be located on the hardstand for each of the containers.

For both the substation and BESS compounds foul drainage will be provided in accordance with Building Control requirements and in agreement with SEPA.

2.3.8 Grid Connection

The applicant has a contracted grid connection offer with the Transmission Operator. The connection date is for October 2030. The current proposals are for the proposed development to be connected to the wider grid network via existing 132kV power lines which run north-south parallel to the B9018 to the east of the Site. The connection from the onsite substation to the 132kV power lines would comprise of buried 132kV cables and/or overhead lines. The exact arrangement of this grid connection is subject to design by Scottish and Southern Energy, the Transmission Operator (TO), but is expected to be to the Blackhillock – Macduff overhead line[3].

Any final grid connection route and associated consents would be the responsibility of the TO.

2.3.9 Borrow Pits

It is anticipated that approximately 188,800m^3 of rock will be required to construct the access tracks, compounds, crane pads and substation areas.

Borrow pits will potentially be used to provide stone for the construction of access tracks, compounds and hardstands, subject to sufficient quality and quantity of stone being available at the four proposed borrow pit search areas, as indicated on **Figure 2.1**. These areas are shown as the maximum potential area of borrow pit extraction, however these areas are unlikely to be fully exploited. An indicative borrow pit arrangement is shown in greater detail in **Figure 2.9**.

Final borrow pit locations within the borrow pit search areas would be subject to detailed ground investigations to confirm suitability of material.

2.3.10 Batching Plant

It is proposed that concrete will be batched onsite, and a batching plant compound is proposed as shown on **Figure 2.1**. **Figure 2.10** presents a typical batching plant layout.

The batching plant equipment will include:

- concrete and aggregate storage bins;
- concrete batching equipment;

- wash out facilities;
- testing facilities;
- water supply; and
- waste storage area.

It is anticipated that a borehole would be sunk to provide a reliable water supply for the batching plant. Any borehole would be subject to suitable yields being available, which will be determined through future detailed ground investigation. Any borehole would require suitable authorisation from SEPA under CAR.

2.3.11 Temporary Compounds

Two temporary construction compounds will be constructed to provide secure areas for office facilities and the storage of materials and components. One will be located in the western cluster of the Site, and the other in the eastern cluster, and both will have dimensions of 100m x 50m. The temporary construction compound will be constructed of compacted stone, bearing directly on a suitable formation strata.

The compounds will be used to accommodate a number of facilities, including Site offices and meeting rooms, staff welfare facilities, storage and laydown areas for construction vehicles, plant, equipment, turbine components, other materials, and aggregate recycling. The compound will also provide sufficient parking for the onsite personnel, deliveries, and visitors.

There will be a sealed bunded area where fuel and oil storage tanks will be situated, to prevent potential contamination in accordance with SEPA guidance the bunded area will be situated a minimum of 50m from any watercourse to reduce the risk of pollution entering watercourses.

Dependent on factors such as time of year and stage of the construction programme, temporary lighting may be required at the temporary compounds and at work areas during work hours. It is not proposed that lighting will be on outside of working hours. A typical layout of the temporary construction compound is presented in **Figure 2.11.**

2.3.12 Felling

The proposed development would require approximately 158.8ha of woodland to be directly felled in order to facilitate the construction of wind turbines and associated infrastructure. While a keyhole approach is favoured, it is anticipated that a small number of mature forestry coupes may require to be clear-felled to the nearest windfirm edge to allow for the construction of the proposed development. Replanting would then take place up to the keyhole area.

In areas where a young crop has been recently planted, keyholing into the young crop will be possible and tree felling kept to a minimum.

Following construction, the majority of felled areas will be replanted, however, a 100m radius from each turbine location within woodland will be maintained and kept clear of trees for operation and maintenance. Further details are provided in **Technical Appendix 3.2: Forestry.** Compensatory planting in line with the Scottish Government's Policy on Control of Woodland Removal[4] would take place to ensure there is no net loss of woodland.

2.3.13 Signage

There would be a requirement for signage at the proposed development to provide safe day-to-day navigation, for emergency vehicles to navigate to emergencies, should they arise, as well as aid the development of comprehensive risk assessment for those visiting and using the Site.

[4] https://forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal

2.4 Environmental Management and Compliance

2.4.1 Construction Environmental Management Plan

A Construction Environmental Management Plan (CEMP) will be prepared prior to the commencement of construction and will detail measures undertaken to avoid or mitigate any potential effects associated with key construction activities. These will reflect and expand upon measures identified in the EIA Report, and will be agreed with the planning authority, SEPA, NatureScot and other stakeholders where appropriate.

An Outline CEMP is provided as **Technical Appendix 2.1**. In acknowledgement that the CEMP is a live document, that would evolve throughout the life of the proposed development, only the principles of the CEMP are outlined at this stage. It is anticipated that the production of a detailed CEMP would be the subject of a condition should consent for the proposed development be obtained.

The CEMP will, as a minimum, include details of the following:

- design philosophy and construction methodologies;
- surface and ground water management;
- water quality monitoring;
- flood risk management;
- private water supply management;
- waste and resource management;
- stump management;
- wastewater and water supply monitoring and control;
- noise and vibration control;
- dust and other emissions to air control;
- spoil management;
- peat slide monitoring and control;
- oil and chemical delivery and storage;
- temporary lighting management
- existing onsite utilities management
- post construction reinstatement
- construction traffic management;
- health and safety management;
- public liaison provision; and
- decommissioning and restoration methodologies.

The CEMP will typically contain the following supporting documents:

- A Pollution Prevention Plan;
- A Peat Management Plan;
- A Construction Traffic Management Plan;
- A Site Waste Management Plan;
- A Borrow Pit Management Plan;

- A Water Quality Monitoring Plan;
- An Access Management Plan; and
- Unexploded Ordnance Strategy.

Pollution Prevention Plan

Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) dictates that a Construction Site License (CAR) will be required from SEPA for the proposed development prior to commencement of construction. It is proposed that a Pollution Prevention Plan would be prepared for this application. Once approved by SEPA, this would act as a supporting document to the CEMP.

The storage of polluting substances at the site during the operational period of the proposed wind farm would only take place where agreed with the relevant authorities in accordance with Control of Substances Hazardous to Health (COSHH) regulations. Generally, substances of this nature are transported in minimum quantities on an 'as required' basis.

Peat Management Plan

Prior to the construction of the proposed development a detailed ground investigation will be carried out. This will allow for a post consent update of the Peat Management Plan (PMP), following the principles set out in the outline Peat Management Plan provided as **Technical Appendix 10.2: Outline Peat Management Plan**.

Construction Traffic Management Plan

As detailed in **Chapter 11: Traffic & Transport**, a Construction Traffic Management Plan (CTMP) would be developed to ensure road safety for all users during the transit of loads to the proposed development. The CTMP would outline measures for managing the convoy of AIL and would set out procedures for liaising with the emergency services to ensure that emergency service vehicles are not impeded by the loads. The CTMP would be developed in consultation with the planning authority, the police, Transport Scotland, and the local community and agreed before deliveries to the proposed development commence.

Site Waste Management Plan

The proposed development would produce small amounts of general, municipal, and hazardous waste during its construction, operation and decommissioning. The Site Waste Management Plan (SWMP) would be put in place to ensure waste generated from the proposed development is kept to a minimum and does not have a significant cumulative effect on local waste management infrastructure. Any forestry wastes/ products would also be considered in this document.

Borrow Pit Management Plan

A detailed ground investigation will be carried out prior to construction of the proposed development. This will allow the applicant to confirm the suitability of the proposed borrow pits and produce a Borrow Pit Management Plan (BPMP).

Water Quality Monitoring Plan

A Water Quality Management Plan (WQMP) will be prepared after receiving consent for planning. The plan will detail proposed monitoring locations, monitoring frequency and analytical parameters based on the findings of the EIA Report and any subsequently submitted documents / information. The plan will also include trigger / action levels and outline protocols and procedures required in the event of an incident.

Access Management Plan

Prior to construction of the proposed development an Outdoor Access Management Plan (OAMP) will be prepared in liaison with Moray Council. It will detail the maintenance of safe public access routes during construction and long-term public access during the operation of the proposed development. An Outline Outdoor Access Management Plan is provided as **Technical Appendix 2.3**.

2.4.1.1 Unexploded Ordnance

Chapter 19 of the original 2007 Environmental Statement discussed the historical land use of part of the Site as a military training area (the Fochabers Training Range), consisting of two mortar firing ranges, a medium machine gun range and a field firing range, located in the western part of the Site around the Hill of Stoneyslacks and Millstone Hill[5].

It concluded that although several MOD clearance exercises have been carried out in the 1950s and 1960s, there was still some residual risk from unexploded ordnance to personnel working in localised areas of the Site.

It is anticipated that a remediation strategy for unexploded ordnance will form part of the planning conditions for the Site (similar to that agreed with MC for the consented site), which will ensure the safety of any Site workers, visitors or members of the public.

2.4.1.2 Environmental Clerk of Works (EnvCoW)

An Environmental Clerk of Works (EnvCoW) would be appointed to undertake Site surveys, monitor the construction activities and report to both the applicant and planning authority of any incidences. The EnvCoW will ensure compliance with the CEMP and any other environmental documentations required by planning conditions. The EnvCoW would liaise closely with the applicant, providing expert advice to assist in rectifying any potential environmental matters that may arise during the construction phase.

2.4.1.3 Planning Monitoring Officer

A Planning Monitoring Officer (PMO) would be appointed to monitor compliance of the proposed development with the planning requirements of its consent during construction and would report to both the applicant and the planning authorities. The PMO would liaise closely with the applicant, providing expertise to help rectify any potential planning issues that might arise.

2.5 Construction and Reinstatement Phase

Construction of the proposed development will consist of the following key construction activities:

- ground investigation and preconstruction surveys;
- construction of the Site entrance;
- construction of the temporary compounds;
- construction of the access tracks, including passing places, turning heads, junctions, utilities crossings, drainage, and water crossings;
- potentially extracting stone from borrow pit;
- construction of the sub-station compound;
- construction of the wind turbine foundations;
- construction of the crane hardstands;
- excavation of trenches and laying of cabling adjacent to the tracks connecting the turbines to the substation compound;
- delivery and erection of wind turbines;
- testing and commissioning of Site equipment including wind turbines; and

[5] See Aultmore ES, Chapter 19, 2007, available on the Moray planning portal under planning reference 07/02375/EIA.

- Site restoration.

2.5.1 Site Preparation and Establishment

Site preparation works would include the following key tasks, some of which would be undertaken concurrently:

- forestry works;
- creation of the new Site entrance;
- staff welfare facilities;
- establishment of internal tracks or upgrading of existing tracks; and
- formation of a construction compound and central laydown area.
- batching plant establishment

2.5.2 Forestry Works

Details of the proposed forestry works are included in **Technical Appendix 2.2: Forestry**. The Forestry Study Area (FSA) extends to approximately 2,400ha and is comprised of one large forest block. The forest contains a range of woodland types and age classes due to original planting and current felling programmes, together with areas of unplanted land. The crops are comprised largely of commercial conifers with areas of mixed broadleaves and open ground. The woodlands are in the production phase, with rotational felling and restocking underway.

Felling would be advanced on 158.8ha for construction of the proposed development.

The species composition of the forest would change as a result of the proposed development forestry proposals. In particular, the area of Sitka spruce (whether pure or in a mix) would reduce by 110ha.

29.5ha of woodland have been identified for habitat restoration and as a result will be cleared of trees.

The area of unplanted ground would increase and, as a result, there would be a net loss of woodland area of 149.2ha.

In order to comply with the Scottish Government's Control of Woodland Removal Policy, compensation planting would be required to mitigate for the loss of woodland area. The applicant is committed to providing appropriate compensatory planting. The extent, location and composition of such planting is to be agreed with Scottish Forestry taking into account any revision to the felling and restocking plans prior to the commencement of operation of the wind farm.

2.5.3 Site Entrance

The construction method for the Site entrance would typically be as follows:

- traffic management to be installed;
- topsoil removed and stockpiled;
- new drainage to be installed, ensuring existing drainage isn't compromised;
- earthworks and road pavement works to be completed to the design requirements; and
- line marking, signage, fencing, visibility splay clearance and vehicle restraint systems required as part of the design will be installed.

2.5.4 Working of Borrow Pits

Excavation of the material from the proposed borrow pits would be carried out using standard quarrying techniques, which may include blasting and mechanical excavation.

To minimise potential environmental impact, the general methodology set out below for management of the borrow pit will be adhered to.

A Borrow Pit Management Plan will be agreed with SEPA and the planning authority prior to the commencement of construction. Provisions for the control of surface run-off during and post construction and the re-vegetating of working faces post construction will be included.

As a worst-case scenario, it is anticipated that blasting may occur between 2-5 times a week for the first 6 months, before becoming less frequent. Appropriate dust suppression at the borrow pits and any materials storage areas will be provided as required.

Once operations are sufficiently underway, restoration will take place progressively behind the working area to encourage re-vegetation. This will minimise any impact to the surrounding environment by minimising the working area at any point.

2.5.5 Construction of Excavated Tracks, Hardstands and Compounds

The construction method for excavated tracks, hardstands and compounds would be as follows:

- the topsoil/peaty soils will be excavated and stored to one side for reuse during the reinstatement of the structure (see **Technical Appendix 10.2: Outline Peat Management Plan)**;
- excavation will be undertaken to competent material. Excavated subsoil material may be stockpiled temporarily adjacent to the excavation for later use as backfill or stored elsewhere on the proposed development. Temporary and permanent drainage shall be installed at the same time as the excavation works;
- if the competent material is lower than the required formation level, the foundation will likely be over-excavated to the competent material and compacted engineering fill will be placed to the required level;
- where excavation is required to extend below the water table or in material which does not drain freely, appropriate pumping will be employed to keep the excavation dry. Water pumped from an excavation shall not be discharged directly to any watercourse;
- if ground conditions dictate, a geotextile membrane will be applied;
- crushed stone will be placed and compacted in layers to achieve the required structural dimensions;
- for the compounds, ducting and reinforced concrete foundations will be constructed at the required design level;
- pre-fabricated buildings and electrical equipment will be delivered to Site and lifted into place;
- drainage will be excavated adjacent to the structures where required. Surface water runoff will not be allowed to discharge directly into existing watercourses but will be routed through a sustainable drainage system (SuDS) in accordance with the Pollution Prevention Plan,
- a surface water cut off ditch may be installed on the slope above the earthworks footprint where achievable given the topography; and
- depending on depth and type of material, cut slopes are anticipated to be between 12 to 14 degrees.

2.5.5.1 Construction of Floating Access Tracks

Floating access track construction may be used where ground conditions dictate. This involves installing a geosynthetic reinforcement directly onto the ground surface and applying layers of crushed stone and additional geosynthetic reinforcement (if required) above. Dependant on ground conditions, a geotextile membrane may also be required to be applied also.

2.5.6 Installation of Cabling

The installation method for cable trench construction would typically be as follows:

- trenches will be excavated to a depth of approximately 1m, and a suitable bedding material placed for which to lay the cables upon;
- the cables will be laid onto the bedding material and spaced according to the design;
- joint boxes installed;
- the trench will be backfilled and compacted with suitable material up to the required level and finished with a layer of topsoil;
- a suitable marking tape will be installed between the cables and the surface; and
- the cables will terminate at each wind turbine and at the substation compound.

Where appropriate for operational forestry requirements, cable crossing points for access into forestry coupes will be provided.

2.5.7 Construction of Wind Turbine Foundations

The gravity-type foundation construction method would typically be as follows:

- topsoil will be excavated and stored for reuse during the reinstatement around the finished foundation;
- excavation will be undertaken to competent material. Excavated subsoil material may be stored temporarily adjacent to the excavation for future use as backfill, or elsewhere on the proposed development. Temporary and permanent drainage will be installed at the same time as the excavation works;
- if the competent material is lower than the required formation level, the foundation will likely be over-excavated to the competent material and compacted engineering fill will be placed to the required level;
- where excavation is required to extend below the water table or in material which does not drain freely, appropriate pumping will be employed to keep the excavation dry. Water pumped from an excavation shall not be discharged directly to any watercourse;
- a layer of concrete blinding will be laid directly on top of the newly exposed formation, finished to ensure a flat and level working surface;
- steel reinforcement, the turbine anchorage system, and cable ducts will be fixed in place and formwork erected around the steel cage;
- concrete will be placed using a crane, pump or other suitable lifting device and compacted using vibrating pokers;
- after the concrete has cured, the foundation will be backfilled with compacted crushed rock . Areas outwith the hardstanding footprint will be landscaped using the topsoil set aside during the initial excavation; and
- a maintenance path will be built leading from either the access track or crane hardstand to either the wind turbine door or access steps and will continue around the turbine.

The piled-type foundation construction method would typically be as follows:

- topsoil will be excavated and stored for reuse during the reinstatement around the finished foundation;
- a suitable level piling platform will be constructed which will likely consist of compacted stone designed to comply with the requirements of the piling rig being used;
- rotary methods will be used to form the pile shaft to the required depth and embedment in the competent soils or bedrock. Any spoil produced shall be removed and stored at the

selected location on the Site. Depending on the selected piling technique and ground conditions, it may be necessary to insert temporary casing into the ground to support the pile bore;

- delivery and placement of the concrete into the pile bore will be undertaken using a concrete pump;
- the pile reinforcement cage may be installed before or after the concrete placement depending on the selected technique;
- on completion of all the piles within a wind turbine foundation, the piling rig and ancillary equipment shall be moved to the next wind turbine location as required; and
- a reinforced concrete pile cap, connected to the piles below, would then be constructed in much the same manner as the gravity type foundation.

2.5.8 Erection of Wind Turbines

The following general steps will be undertaken with regards to erecting the wind turbines:

- certain components will be pre-delivered in sections and offloaded at the crane hardstands;
- any remaining components will be delivered on a just-in-time basis and will be lifted directly from vehicle trailers;
- components will be lifted using suitably sized cranes (typically one main crane and one smaller assist crane) and positioned on the foundations/other sections until the entire wind turbine is erected;
- upon completion of the erection, all fasteners will be tightened and the internal fit out of the wind turbine will be undertaken;
- the wind turbines would then be connected to the substation compound; and
- wind turbine testing and commissioning will be undertaken before the wind turbines will be handed over as complete.

2.5.9 Reinstatement

Following construction, the proposed development will be reinstated where appropriate. The expected type and extent of reinstatement is outlined below.

Where re-turfing is appropriate, for example along track verges, the surface layer of soil and vegetation will be stripped and stored separately from the lower soil layers and replaced as fully intact as possible once construction is complete.

Local restoration will be carried out to retain the structure and composition of the original plant communities, as well as forming a stable area over reformed ground, thus reducing erosion by rain, run-off and wind.

Bare soil areas will be allowed to re-vegetate naturally in combination with reseeding using a low density (~20kg per hectare) seed mix which mirrors local vegetation to help bind the soil more quickly.

Access tracks, crane pad hardstands and compounds are required throughout the operation of the wind farm to permit access for maintenance and repair operations. They will also be necessary to allow access during the decommissioning stage. Generally, the sloping verges of access tracks, hardstands, and compounds will be dressed with Site-sourced turf or seed bank material. If suitable material is generated during the construction of the structure, this material can be used to form a low-lying screening verge along the downhill side of the structure. This will assist in reducing the visibility of the structure. Further detail is provided in **Technical Appendix 10.2: Outline Peat Management Plan.**

The temporary compounds will be reinstated into the surrounding landscape and restored to its original condition.

It is essential that the access track width is retained during the operation of the proposed development to allow occasional crane access if required, hence no works to reduce the access track width, post wind turbine erection, are proposed. Tracks would also be required for decommissioning work.

Cable trenches would be similarly reinstated. Where practicable, vegetation over the width of the cable trenches would be lifted as turves and replaced after trenching operations to reduce disturbance.

2.5.10 Micrositing

Micrositing allows for the locations of wind turbines and infrastructure to be modified post-consent within specified parameters, following detailed ground investigation and ground clearance. Through industry experience, a micrositing allowance of up to 100m is considered appropriate for wind turbines and their associated infrastructure, subject to certain conditions such as ensuring buffers from watercourses, ecological constraints, or other identified constraints are maintained. The assessments within this EIA Report therefore account for the potential micrositing of the wind turbines and associated infrastructure within a 100m micrositing allowance.

2.5.11 Construction Programme

The main construction elements of the proposed development is estimated to last 18 months. An indicative program for the construction activities of the proposed development is shown in **Table 2.2**.

Table 2.2: Outline Construction Programme

Activity/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Establish Temporary Compound																					
2. Install Welfare Services & Establish Water Supply																					
3. Borrow Pit Development and Operation																					
4. Establish Central Laydown Area & Procure Materials																					
5. Create Site Access Entrance at B9016																					
6.. Wind Farm Tree Felling																					
7. Construct Access Tracks																					
8. Import Materials (Road Capping, etc.)																					
9. Construct Turbine Foundations & Hardstandings																					
10. Construct Buildings & External Equipment																					
11. Internal Fit																					
12. Install Wind Farm Cabling																					
13. Erect WTGs																					
14. Commission WTGs																					
15. WTG/WF Reliability Run & Grid Compliance																					
16. Take Over																					
17. Site Restoration																					

2.5.12 Construction Hours

In general, working hours for construction will be from 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturdays. No working is proposed on Sundays or public holidays. If work is required outwith these hours, this will be agreed in advance with Moray Council.

Exceptions to the proposed working hours will be made for foundation pours, wind turbine delivery/erection, emergency works, dust suppression and testing of plant and equipment. Concrete pouring for an individual wind turbine foundation must take place continuously and so activity will only cease when the pour has been completed. Wind turbine erection can only occur during periods of low wind speeds so to minimise the construction programme, lifting operations may need to be scheduled outwith the above hours. In addition to this, it may be necessary to complete a particular lifting operation to ensure the structure is left safe.

2.6 Operational Phase

2.6.1 Duration

The proposed development would have an operational life of up to 35 years from final commissioning. The wind farm would largely be controlled and managed remotely, however there would be technicians onsite regularly.

2.6.2 Lighting

The turbines are over 150m to blade tip and, in line with guidance from the CAA, are required to be lit with medium intensity (2000 candela) steady red aviation warning lights in accordance with Article 222 of the UK Air Navigation Order (ANO) 2016. A second light serving as an alternative will also be provided in case of failure of the operating light.

The CAA Policy Statement on Lighting of Onshore Wind Turbine Generators in the United Kingdom with a maximum blade tip height at or in excess of 150m Above Ground Level (June 2017) allows lights to operate in a lower intensity mode "if the horizontal meteorological visibility in all directions from every wind turbine generator in a group is more than 5km." In these circumstances, the 2000 candela lights could be operated at "not less than 10% of the minimum peak intensity specified for a light of this type" (200 candela).

Infrared lighting, complying with MOD requirements, will also be added to the turbine nacelles to comply with MOD lighting requirements. This is not visible to the naked eye.

2.6.2.1 Lighting Mitigation

A reduced lighting scheme has been proposed (see **Technical Appendix 14.1: Lighting Scheme**) which proposes the following mitigation in order to reduce any potential impacts on the night-time landscape by the lighting of the turbines:

- It is proposed that visibility sensors be installed on turbines. Should atmospheric conditions (for example, low cloud cover, rain, mist, haze or fog) mean that visibility around the Site is greater than 5km, lights would operate in a lower intensity mode of 200 candela. If visibility is restricted to 5km or less, lights would operate at 2000 candela;
- The requirement for turbines to be lit at intervals on the wind turbine towers has been removed;
- It is proposed that only turbines T1, T2, T3 and T5 in the western cluster, and turbines T6, T8, T13, T15 and T16 in the eastern cluster are lit with 2000 candela lighting, with the remaining turbines not being fitted with visible lighting.

The lighting scheme has been approved by the CAA and is included as **Technical Appendix 14.1.**

2.6.3 Staffing, Maintenance and Monitoring

A service team would be set up to maintain the proposed wind farm throughout its operational life. An operations manager would oversee day-to-day wind farm operations, managing a team of up to 1-2 technicians who may be based in the local area. This team would either be employed directly by the Applicant or by the turbine manufacturer. Turbine maintenance would be carried out, along with any other maintenance required by manufacturers' specifications, and would likely include the following:

- initial servicing;
- annual civil maintenance of tracks and drainage;
- scheduled routine maintenance and servicing;
- unplanned maintenance or call outs; and
- blade inspections.

Maintenance could include the performance of tasks such as maintenance of bolts to the required torque, adjustment of blades, inspection of welds and relubrication of moving components. In addition, sampling and testing of oil from the main gearbox and replacement of oil as required would be undertaken. Oil filters would be replaced at regular intervals.

Once operational, the proposed development will not have a permanent onsite presence, instead being remotely monitored and managed from a control room, and it is anticipated that the volume of traffic associated with the proposed development would be minimal. Any traffic generated will comprise routine maintenance and service team visits. Along with the occasional need for more extensive maintenance or repairs. Wind turbine operations will be overseen by suitably qualified contractors.

Routine maintenance and servicing will take place typically every 6-12 months. Servicing will include the performance of tasks such the adjustment of blades, inspection of blade tip brakes, and inspection of welds in the tower. Other visits to the proposed development will take place more frequently to ensure that the wind turbines are operating at their maximum efficiency. In the event of any unexpected events onsite appropriate repair works will be carried out.

Ongoing access track maintenance will generally be undertaken in the summer months when access tracks are dry. Safe access will be maintained all year round.

The proposed development would have a sophisticated overall Supervisory Control and Data Acquisition system (SCADA) that would continually monitor each of the wind turbines and the high voltage (HV) connection. If a fault were to develop which required an operator to intervene, then the SCADA system would contact duty staff via a mobile messaging system. The supervisory control system can be interfaced with remotely. The SCADA system would have a feature to allow a remote operator to shut down one or all of the wind turbines.

Signage will be placed on the proposed development giving details of emergency contacts. This information will also be made available to the local police station and the TO.

2.7 Decommissioning Phase

At the end of its operational life, the proposed development would be decommissioned or an application may be submitted to repower the Site. The decommissioning period is expected to take up to one year.

The ultimate decommissioning protocol would be agreed with Moray Council and other appropriate regulatory authorities in line with best practice guidance and requirements of the time. This would be done through the preparation and agreement of a Decommissioning and Restoration Plan (DRP). Financial provision for the decommissioning would be provided, most likely via a planning condition requiring a financial guarantee.

Over the period of the operation of the wind farm, it is recognised that there are likely to be changes in legislation and guidance, environmental designations, the status/condition of sensitive

environmental receptors and stakeholder objectives that may affect decommissioning and restoration methodologies. The detailed DRP would reflect the scientific ideas and best practice current at the time of decommissioning and restoration. With this in mind and to aid the future development of the detailed DRP, a series of guiding principles have been developed, which would be adhered to during future iterations of the DRP:

- the detailed DRP would be implemented such that it *"provides the most benefit or least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term"*[6]. Results of the Best Practicable Environmental Option (BPEO) evaluation would inform whether the most benefit or least damage would be achieved by completely removing all infrastructure or retaining some elements of some infrastructure. This would be agreed with Moray Council prior to decommissioning;
- the detailed DRP would be consistent with the final agreed Habitat Management Plan (HMP). This would serve to maintain the biodiversity and geodiversity of the Site. Furthermore, it would be consistent with any conditions required for flood relief or other nature conservation objectives;
- the final DRP would include full details of pollution prevention and control measures, and silt control measures that would be implemented during the decommissioning and reinstatement period to prevent impact on the watercourses to avoid adverse impacts to water quality;
- the detailed DRP would be in accordance with the National Planning Framework 4 and local planning policies in place at the time of writing; and
- the detailed DRP would aim to minimise the generation of waste and seek to re-use and recycle materials as much as possible, adhering to waste management licencing principles in place at the time of writing. Any waste that is generated during the decommissioning and restoration process would be removed from the Site and dealt with appropriately in line with best practice at the time of writing.

In addition, Vattenfall has committed to a landfill ban for its decommissioned turbine components, including blades, by 2030[7].

The decommissioning of the wind farm will likely involve the following processes:

- dismantling and removal of wind turbines and electrical equipment;
- restoration of the wind turbine areas, hardstands and access tracks; and
- dismantling and removal of the substation and BESS compounds.

Wind turbine components and electrical equipment will be dismantled and removed in a similar manner to their delivery and erection. The wind turbines will be split into sections which will then be transported from the proposed development by HGVs unless the components are sold on, in which case, they will be removed as AILs. Wind turbine components will be cut up offsite in controlled environments ready for reuse, recycling or appropriate disposal.

The removal of the top of the wind turbine base will be undertaken requiring an excavated trench around the upstand to provide a working area. Breakout of the top part of the upstand will be undertaken using an excavator mounted jack hammer. The cables will be cut level with the remaining concrete. Once the broken-out concrete has been removed, the area will be reinstated by backfilling with topsoil / peat.

[6] HMSO (1988). Royal Commission on Environmental Pollution (1988), Twelfth Report, Best Practicable Environmental Option. London, February 1988.

[7] https://group.vattenfall.com/press-and-media/pressreleases/2021/vattenfall-commits-to-landfill-ban-and-to-recycle-all-wind-turbine-blades-by-2030

The cable ducts will be left in place to avoid unnecessary ground disturbance, but the cables will be wound out and recycled.

It is anticipated that pre-decommissioning surveys would be required to provide new baseline data on any potential environmental receptors such as protected species, other identified ecological receptors, hydrology and peatland, which may be potentially impacted during decommissioning. Prior to the planned commencement of decommissioning, consultation would be undertaken with statutory consultees, including Scottish Environmental Protection Agency (SEPA) and Nature Scot (NS) regarding the requirements for the scope of pre-decommissioning surveys.

2.8 Health and Safety

2.8.1 Construction Phase

The construction Site would be managed and operated in accordance with Health and Safety at Work etc. Act 1974 and comply with relevant Health and Safety Regulations, including:

- The Management of Health and Safety at Work Regulations 1999;
- Electricity Safety, Quality and Continuity Regulations 2002; and
- Construction (Design and Management) Regulations 2015.

2.8.2 Public Safety

Throughout the construction phase of the proposed development, the relevant statutory requirements would be adhered to. All potentially hazardous areas would be fenced off and all unattended machinery will be stored in the temporary construction compound or immobilised to prevent unauthorised use. In addition, signage will be placed at each possible entrance to the Site and in areas where there may be further danger, for example around open borrow pits. Measures to manage diversion routes would be secured. The diversion routes would be clearly marked and for safety reasons would direct the user away from any areas of construction. It is proposed that further details would be provided in a Path Management Plan post consent.

Although members of the public have the right to roam land in Scotland under the Land Reform (Scotland) Act 2003 there will be restricted access around the proposed development during the construction phase for health and safety purposes.

2.8.3 Operational Phase

Wind farms have a proven track record for safety. A very small number of wind turbines have been known to suffer mechanical damage through lightning strikes or mechanical failure. Experience on operational wind farms has shown that allowing the public to access an operating wind farm does not lead to a compromise with respect to safety issues.

Companies supplying products and services to the wind energy industry operate to a series of international, European and British standards. A set of product standards for wind energy equipment has been developed by the International Electrotechnical Commission - IEC 16400. There are a number of British Standards that correspond to it, for example; BS EN 61400-1 ed3.0: 2005 “Wind turbines – Part 1: Design requirements”.

The applicant will commit to installing wind turbines and components that meet BS EN 61400-1 ed3.0.

Public access to the Site after construction has been completed would remain the same as the current situation, although with some specific improvements to footpath infrastructure to facilitate public access which have been proposed as part of the proposed development. Vattenfall intend to improve the access opportunities and where possible, link existing access networks during the operational phase of the wind farm, as well as improving signposting and information about the routes.

Appropriate warning, directional and identification signs would be installed on the wind turbines, transformers and at the substation. Access to these would be restricted to wind farm personnel and these facilities will be locked at all times. Additionally, safety and/or directional signs will be placed at strategic points across the Site, particularly on the public routes to inform members of the public that they are entering a wind farm, to ensure awareness of potential hazards and to provide direction for emergency services should the need arise. Any signage would be agreed with the relevant authorities prior to installation. It is proposed that further details would be provided in a Path Management Plan post consent.

No resulting safety risks are expected as a result of public access to the proposed development. Wind turbine models being considered for the Site would operate automatically and have sensors to detect any instabilities or unsafe operation during high wind speeds. If sensors placed within the nacelle and tower of the wind turbine detect any other malfunction during operation, or should wind speeds increase over maximum operational thresholds, the brakes would be automatically applied to rapidly shut the wind turbine down.

Icing in Scotland is unlikely to be a common occurrence. The design of the proposed development has considered the possibility of ice throw occurring and wind turbines have been sited in locations to ensure that the rotor blades do not oversail any public roads to minimise the risk from ice fall. To further minimise the risk, public notices will be displayed at new and existing access points to the Site, alerting members of the public and staff accessing the Site of the possible risk of ice throw under certain weather conditions.

If a cause of a shutdown was high wind speeds, then the wind turbine would automatically begin operation once the average wind speed reduced to within operational levels. For other causes of shutdown, e.g., through malfunction, the wind turbine would remain shut down and in a safe condition (i.e., commonly with the blades orientated 90° to the wind direction) until restarted by a member of the operations and maintenance (O&M) team following satisfactory investigation. This procedure ensures safe operation of wind turbines to ensure protection for members of the public walking, cycling, or riding past during the operational phase. Additionally, the vibrometers in the nacelles would detect rotor imbalance in blades caused by icing and the wind turbine's control and monitoring system would shut the wind turbines down under these conditions. The wind turbines are also equipped with lightning protection equipment so that strikes would be conducted from the nacelle down the tower into the earth.

2.9 Conclusion

This chapter has set out a description of the proposed development and provided details of the activities that would be undertaken throughout the construction, operation, and decommissioning phases of the proposed development.

There is sufficient detail to provide consultees with a reasonable understanding of the proposed development and to inform the assessment of its likely significant environmental effects. Further construction details would be provided in the CEMP, which would be submitted for approval prior to the construction of the proposed development.