Bute Energy

Aberedw Energy Park

Appendix 4.2:

Outline Construction Environmental Management Plan (CEMP)

Aberedw Energy Park Limited

Aberedw Energy Park Environmental Statement

Appendix 4.2: Construction Environmental Management Plan

Prepared by LUC
June 2025

Aberedw Energy Park Limited

Aberedw Energy Park
Appendix 4.2: Construction Environmental Management Plan

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1. Introduction

1.1 Project Background

1.1.1 Aberedw Energy Park Ltd (the Applicant) is applying for planning permission for a Development of National Significance (DNS) comprising an energy park and associated ancillary development in Mid-Wales, known as Aberedw Energy Park. The Proposed Development will include up to 18 wind turbines. A full description of the Proposed Development can be found in **Section 2** of this document.

1.2 Location

1.2.1 The Proposed Development is located approximately 3 km east of Builth Wells on Aberedw Hill which is a broad hill, with steep escarpments/slopes and valleys on all sides (hereafter referred to as the 'Site'). The majority of the Site is made up of undulating upland which is managed as open moor common land, with a small number of access tracks and small areas of scrub woodland. The Site is located between the A481 (to the north of the Site) and the B4567 (to the west of the Site). Access to the Site is proposed via the C1336 (From Junction With C1334 Leading To Cregrina To Crossroads With A481 Near Bevan House, Hundred House, Llandrindod Wells).

1.2.2 The Site is situated within the local planning authority area of Powys County Council (PCC).

1.2.3 The location of the Site is shown in **Figure 1.1** in **Volume 2** of the Environmental Statement (ES).

1.3 Purpose of Outline Construction Environmental Management Plan

1.3.1 The purpose of this Outline Construction Environmental Plan ('Outline CEMP') is to provide details of the various site-specific environmental control measures that will be implemented to avoid, minimise or mitigate effects on the environment and surrounding areas during construction. Its objectives are to provide assurance to third parties that:

- Good construction practices will be adopted and maintained throughout construction of the Proposed Development;
- Agreed environmental performance criteria will be met;
- Procedures will be established for ensuring compliance with environmental legislation and statutory consents; and
- Good standards of monitoring and auditing environmental performance will be established throughout construction.

1.3.2 The Outline CEMP accompanies the planning application submission and draws together environmental work undertaken during the design of the Proposed Development. This document should be read in conjunction with **Appendix 12.1: Schedule of Mitigation Measures**.

1.3.3 The Outline CEMP will form the basis of more detailed management plans and method statements including the detailed CEMP at a later stage of the planning and consenting process.

1.3.4 The detailed CEMP will be prepared during the pre-construction period leading up to appointment of a Principal Contractor. The detailed CEMP will be agreed upon with PCC and is expected to be secured by planning condition.

1.3.5 The detailed CEMP will set out the requirements for the management of environmental impacts associated with the construction phase of the project. It will include specific measures that will be taken to comply with the requirements set out in the Outline CEMP including general site arrangements and the control measures for each of the potential environmental effects such as noise, ecology, water quality and cultural heritage impacts alongside other related construction method statements.

1.3.6 The detailed CEMP will be updated as necessary as construction progresses and the Principal Contractor will berequired to adhere to the CEMP under the terms of its contract.

1.4 Structure of Outline Construction Environmental Management Plan

1.4.1 The following structure has been adopted for this Outline CEMP:

- Section 1 – Introduction
- Section 2 – Proposed Development
- Section 3 – Roles and Responsibilities
- Section 4 – Management of Environmental Issues

1.4.2 The Outline CEMP has been prepared using the following documents:

- Environmental Good Practice Site Guide, 4th Edition (C741), CIRIA (2015);
- The principles of ISO 14001:2015 the international standard for Environmental Management Systems;
- The Institute of Environmental Management and Assessment Practitioner Volume 12: Environmental Management Plans (December 2008);
- Good practice during wind farm construction, NatureScot (Version: July 2024);
- Control of Pollution Act 1974;
- Environmental Permitting Regulations 2017;
- Environmental Damage (Prevention and Remediation) Regulations 2015; and
- Construction (Design & Management) Regulations 2015.

1.5 Change Control

1.5.1 The CEMP is a live document that the Applicant will review and update, where required, prior to the start of construction. It is not expected that the CEMP will need major revisions following the commencement of construction. However, if changes are required due to exceptional circumstances, then the Principal Contractor's change control process will be followed to record documentation revision requests and their final approval status. The revised CEMP and the changes will be communicated to personnel on Site.

2. Proposed Development

2.1 Proposed Development

2.1.1 The Proposed Development, subject to planning permission under the Development of National Significance process, comprises the following elements, as outlined in Chapter 1: Introduction, Chapter 4: Project Description and **Figures 4.1a-e** of the ES.

2.1.2 The main components of the operational Proposed Development are as follows:

- Up to 18 turbines, each with a three-blade rotor;
- Crane hardstanding and laydown areas for each turbine location;
- 13.35 km of access tracks (of which 11.66 km will be new track and 1.69 km will be upgraded existing track) including turning heads, passing places and associated ancillary engineering works;
- An electrical substation and control building, consisting of a switching station, transformer area control/SCADA facilities and welfare/storage facilities, and an operations building;
- Onsite underground electrical cables connecting the wind turbines back to the substation. These are mostly laid in cable trenches alongside existing access tracks but divert off the access tracks towards the substation off the hill;
- New site access road off the C1336 (from the A481 near Bevan House, Hundred House, Llandrindod Wells) and an additional entrance off the A481 to facilitate substation access and AIL delivery;
- Watercourse crossings;
- Site signage; and
- Biodiversity Enhancement Proposals / Habitat Management Areas.

2.1.3 In addition to the above components of the operational Proposed Development, construction of the Proposed Development will also require the following temporary components:

- Two temporary construction and storage compounds (including a security cabin);
- The creation of up to two borrow pit(s) for the extraction of stone (subject to detailed site investigation) which would be utilised for habitat management proposals following the construction phase of the Proposed Development; and
- The temporary diversion or temporary closure of a number of Public Rights of Way (PRoW) that cross through the Site.

2.1.4 The wind turbines will have a maximum blade tip height of 200 m, with an indicative output capacity of the Proposed Development at this stage is approximately 120 MW. However, the capacity may vary subject to the final turbine model chosen.

2.2 Programme

Construction Programme and Activities

2.2.1 The Proposed Development is anticipated to be constructed in a number of phases over approximately 15 months as described below:

- **Phase 1: Enabling Works and Initial Site Establishment: Month 1 to Month 3;**
  - Site mobilisation / set up and access
  - Open up borrow pits ready for extraction;

- Borrow Pit operations;
- Start of construction of main Site access tracks;
- Construct laydown for site accommodation and establish gate control;
- Mobilisation of plant and equipment;
- Construct main compound and establish facilities;
- Establish satellite compounds;

- **Phase 2: Main Construction On Site: Month 3 to Month 14**
  - Continued construction of main site access tracks;
  - Track/crane pad earthworks and drainage;
  - Substation earthworks and stone platform;
  - Control building construction;
  - Turbine foundation construction;
  - Backfill foundations and completion of crane pads;
  - Inter turbine cabling;
  - Onsite substation building and civils works to level and prepare the platform;
  - Substation electrical installation;
  - Substation electrical commissioning;
  - Pre-turbine delivery capping layer;
  - Site ready for turbine deliveries; and,
  - Turbine component delivery, assembly and commissioning.
- **Phase 3: Reinstatement and Demobilisation: Month 13 to Month 15;**
  - Reinstatement of borrow pits;
  - Demobilisation of satellite construction compound (could be earlier, e.g. after Phase 2);
  - Reinstatement of temporary construction areas;
  - Demobilisation of main construction compound; and,
  - Reinstatement of construction compound platforms.

2.3 Working Hours

2.3.1 Any construction activity that would be audible at nearby residential properties will be limited to the following hours:

- Monday to Friday: 07:00 – 19:00 hours;
- Saturday: 07:00 – 13:00 hours; and,
- Sundays and public holidays: no working unless agreed in advance with PCC.

2.3.2 No other construction activity audible at nearby residential properties would take place outside the working hours above unless agreed with PCC.

2.3.3 Exceptions to the proposed working hours will be made for foundation pours and wind turbine erection. Concrete pouring for an individual wind turbine 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

and so to minimise the construction schedule, lifting operations may need to be scheduled outside the above hours. In addition, it may be necessary to complete a particular lifting operation to ensure the structure is left safe.

2.3.4 Working hours will be subject to a suitably worded planning condition.

2.4 Site security

2.4.1 The general site area will largely remain open to the public with discrete work sites such as turbine bases, substation, compounds and sections of PRoW secured during the works to protect the public and prevent unauthorised access. Where discrete work sites are required to be fenced, these will be maintained in a neat and tidy condition. No advertisements or fly posting will be permitted on any fence. Graffiti etc. will be removed and made good as soon as reasonably practicable. The type of fencing used will be selected to suit the location and purpose. All temporary fencing will be removed after the completion of the works.

2.5 Security of works on Statutory Common Land

2.5.1 Works on, or adjacent to, the Statutory Common Land must not block the commoners and members of the public from being able to easily access other areas of the Common. The construction compound and substation are located off the Statutory Common Land and hence can be fenced for security during construction.

2.5.2 The substation will be fenced permanently for security of assets and public safety. The construction compound will be fenced temporarily whilst in operation for security of materials, plant and equipment and for public safety. Turbine bases will be fenced during construction (e.g. where foundation excavation and pours are occurring) but will be opened back up again following completion of the works.

2.5.3 Temporary security fencing will be kept to a minimum for works on the Common, with discrete lengths of track fenced temporarily whilst works may pose a hazard and then re-opened again once hazardous works have been completed. A reasonable balance will be struck between managing the security and safety of the public with access rights of the commons.

2.6 Environmental Setting and Key Constraints

2.6.1 The environmental constraints of relevance to the Outline CEMP are summarised in **Table 2.1** below. For more information, please see the relevant ES topic chapters.

Table 2.1 Environmental Constraints

Environmental Topic	Description
Landscape and Visual	The Site comprises the upland area of Aberedw Hill. This is a broad hill, edged by steep escarpments/slopes and valleys on all sides, particularly the northern and western flanks. The deepest and broadest of these valleys, to the west of the Site, is that of the River Wye, above which Aberedw Hill occupies a prominent position and forms a distinguishable landform feature when viewed from the valley. The valley of the River Edw, a tributary of the River Wye flowing south-west, is located to the east and south of the Site. Several smaller, incised valleys contain water courses that drain south from Aberedw Hill and feed into the River Edw.
Archaeology and Cultural Heritage	The Site contains four scheduled monuments. There is also a record of Mesolithic flint artifacts and funerary monuments, including a group of barrows on Aberedw Hill, from within the Site.
Ecology (non-avian)	Ecological surveys have identified: ■ Priority habitats, including some Groundwater Dependent Terrestrial Ecosystems (GWDTE);

Environmental Topic	Description
	■ Low suitability for commuting, foraging bats, primarily restricted to the lower slopes and off-site adjacent woodland; and ■ A small population of Great Crested Newt present.
Ornithology	Surveys have identified the following species in the vicinity of the Site or flying over the Site: ■ Red kite; ■ Goshawk; and ■ Golden plover.
Hydrology, Hydrogeology and Geology	The Site lies across the catchments of the Water Framework Directive catchments of the Camnant Brook, River Edw and River Wye. The Camnant Brook and River Edw are both tributaries of the River Wye. The River Wye and its tributaries are designated as a Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC). This includes the Colwyn Brook, which lies adjacent to the north of the Site, near the A481 and the River Edw, which lies 200 m east of the Site at its closest point near Cregrina. The River Wye is located approximately 50 m west of the Site at its closest point. The Colwyn Brook Marshes are also designated as an additional SSSI, which extends onto the north of the Site. The Site has several small discrete pools and ponds many of which are considered likely to be manmade as they typically comprise livestock watering holes. The majority of the Site is within Flood Zone 1 (low risk). Small areas of the Site are within medium and high-risk flood zones (Flood Zones 2 or 3). However, these are all within well-defined valley/ channel systems which drain upland areas. There is also a medium risk of flooding (Flood Zone 2) associated with the River Wye adjacent to the south-west of the Site The Site lies within an area of Silurian age rock formations. Superficial deposits onsite mainly comprise glacial till which covers the very northern extent of the Site. There are 24 quarries onsite, none of which are operational.
Noise and Vibration	The Site is in a rural area, with several individual farmhouses or other noise-sensitive dwellings located within 1 to 2 km from the Site boundary. The nearest large settlement, Builth Wells, is located approximately 3 km away and the village of Aberedw is situated approximately 2 km to the south.

2.7 Relevant Legislative Requirements

2.7.1 All construction work will be carried out in compliance with the relevant requirements of UK environmental law, which includes but is not limited to the following:

- Environmental Protection Act 1990;
- Environment Act 2021;
- Environment (Wales) Act 2016;
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017;
- Land Drainage Act 1991
- Water Act 2014;
- Flood and Water Management Act 2010;
- Natural Environment and Rural Communities Act 2006;
- Wildlife and Countryside Act 1981;

- Ancient Monuments and Archaeological Areas Act (AMAA) 1979;
- The Waste (England and Wales) Regulations 2011;
- The Air Quality Standards Regulations 2010; and,
- The Environmental Noise (Wales) Regulations 2006.

2.8 Consent and Permissions Required

2.8.1 The Proposed Development will require consents and exemptions from various regulatory bodies in advance of construction activities. Any additional requirements (such as planning conditions) will be met prior to works beginning on site, where required.

2.8.2 Copies of the legal consents, permits and licenses obtained will be held in the Site Environmental File by a suitably qualified Environmental/ Ecological Clerks of Works (ECoW) and Archaeological Clerk of Works (AcoW).

3. Responsibilities and Management

3.1 Responsibilities

3.1.1 To ensure that environmental standards are maintained throughout the construction works, it is necessary that every person working on the Site is aware of their responsibilities. Specific roles and responsibilities have been set out below. The Principal Contractor will have overall responsibility for implementation of the CEMP and will ensure that the provisions and commitments set out within the CEMP, including licences and associated mitigation measures that apply to the site work are adhered to.

3.1.2 Various organisations are involved in the safe and environmentally responsible delivery of this scheme. The following key roles have been identified within these organisations:

Applicant

3.1.3 The Applicant shall provide general oversight and strategic direction to the Proposed Development. Applicant representation on site relevant to the implementation of the CEMP will include a Project Manager (PM) and an Environmental Project Manager (EPM) to ensure delivery of the commitments set out in the CEMP. They will liaise with the Principal Contractor on their roles and responsibilities as described below. The Applicant shall retain ownership of the CEMP whilst the Principal Contractor will have direct responsibility for its implementation.

Principal Contractor

3.1.4 The Principal Contractor shall execute the work and will have direct responsibility for implementing the CEMP. The Principal Contractor will ensure that all members of the Project Team, including sub-contractors, comply with the procedures set out in the CEMP. The Principal Contractor will also ensure that all persons working on site are provided with sufficient training, supervision and instruction to fulfil this requirement. The Principal Contractor shall ensure that all persons allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.

Training and Competence

3.1.5 The Applicant will require the Principal Contractor to employ an appropriately qualified workforce, which may include relevant employees holding a card from an appropriate competence scheme, such as the Construction Skills Certificate Scheme. The Principal Contractor will be required to operate induction schemes for all personnel to ensure that they are aware of their individual responsibility to comply with the CEMP. The Principal Contractor will be responsible for identifying the training needs of its personnel to ensure that they are appropriately qualified.

3.2 Management Planning

Site Waste Management Plan

3.2.1 A Site Waste Management Plan (SWMP) for the Proposed Development will be developed at an appropriate time to be agreed with PCC and will be updated as necessary as the construction phase progresses.

3.2.2 The purpose of the SWMP is to demonstrate that measures will be put in place to sustainably manage waste generated during construction to aim to meet Welsh Government targets for recycling construction and demolition waste. The SWMP will be used to record waste management performance throughout the construction period.

3.2.3 The SWMP will aim to reduce materials wastage onsite, and measures to ensure the efficient re-use and handling of soil material are included in **Appendix 9.6** of the ES. The procurement of turbines and associated equipment for the Proposed Development will also where appropriate, include prioritisation of sustainable construction methods and materials.

3.2.4 A Foul Drainage Strategy will be produced and submitted to PCC prior to commencement. Disposal of foul waste arising from the welfare facilities on Site during construction will be taken and disposed of by a licenced waste carrier to a Wastewater Treatment Works outside of a Nutrient Sensitive Catchment. The treatment works of choice will be identified at the time of developing the both the Foul Drainage Strategy and the Site Waste Management Plan and agreed with PCC ahead of any welfare facilities being placed on the Site.

Pollution Prevention Plan

3.2.5 This plan outlines strategies and procedures to mitigate potential sources of pollution and ensure compliance with regulatory requirements. Several associating management strategies and embedded mitigation as noted by the ES will be referred to within the Pollution Prevention Plan.

3.2.6 The plan will look to identify key potential sources of pollution associated with activities during construction, operation, and maintenance phases and will look to assess the environmental risks and impacts associated with each activity, considering factors such as soil erosion, water contamination, and air quality.

3.2.7 Pollution Prevention Measures that have already been considered within the ES include:

- Site Design: Optimised layouts to minimise disturbance to sensitive habitats and reduce erosion potential;
- Spill Prevention: Implementation of spill containment measures and establish protocols for handling and reporting spills of lubricants, fuels, and other hazardous materials;
- Waste Management: Developed procedures for segregating, storing, and disposing of waste generated during construction, operation, and decommissioning phases;
- Energy Efficiency: Promotion of energy-efficient practices in operations, including the use of renewable energy sources for power generation and the adoption of energy-saving technologies in facilities and equipment;
- Noise Control: Implementation of measures to minimise noise emissions from wind turbines and associated infrastructure to mitigate potential impacts on wildlife and nearby communities;
- Visual Impact Mitigation: Design of turbine layout and associated infrastructure to minimise visual impact on the landscape and surrounding areas, considering local aesthetics and cultural values.

3.2.8 The plan will look to establish monitoring programs to track key environmental indicators, such as water quality, air emissions, and wildlife populations.

3.2.9 The Emergency Response Plan (ERP) detailed below will also look to contribute to effectively manage pollution incidents and mitigate environmental damage in the event of spills, leaks, or other emergencies.

3.2.10 The plan will highlight engagement with local communities and stakeholders to solicit feedback on pollution prevention measures and address any concerns or issues raised.

3.2.11 Regularly review and update the Pollution Prevention Plan in response to changing environmental conditions, regulatory requirements, and best practices in pollution prevention will be undertaken.

Emergency Response Plan

3.2.12 The ERP is designed to ensure the safety of personnel, protect the environment, and mitigate damage to property in the event of an emergency situation. This plan will outline procedures to be followed by employees, contractors, and emergency responders in agreement with relevant stakeholders prior to commencement of construction and operational activities onsite.

3.2.13 The plan will include details of emergency contact and response teams as well as their various roles and responsibilities.

3.2.14 Team members will be trained in emergency procedures and equipment operation where required and communication protocols will be established in case of emergency situations.

3.2.15 Evacuation Procedures will be detailed to identify assembly points, evacuation routes and procedures and assigned responsibility for accounting of all individuals onsite.

3.2.16 Training and Emergency Situations will be documented and used to improve the ERP as needed in addition to maintenance of up-to-date contact information.

Surface Water Management Plan (SuWMP)

3.2.17 A Surface Water Management plan will be required to deal with the increased runoff from turbine hardstands and access tracks. The SuWMP will highlight potential contaminants and suspended sediment which could originate from the site and may affect the receiving watercourses and priority habitats (many of which are dependent on

groundwater). The SuWMP will set out appropriate monitoring to be carried out prior to and during the construction phase.

3.2.18 A Surface Water Management plan will be provided as an appendix to the CEMP, which includes;

- Provision for protection measures to control silt and other run-off within the construction site footprint (e.g. silt fencing, earth bunds etc.);
- Temporary works requirements in containing, managing and treating surface-water runoff as it leaves the construction site, including any necessary attenuation, settlement and treatment prior to water discharge;
- Requirement for works sequencing, soils management etc. in order that the effects of each section of works are minimised;
- Proper storage and use of oils, fuels and construction chemicals;
- Provision of Site-worker accommodation and sanitation facilities; and,
- Management and removal of waste materials.

3.2.19 An Outline Drainage Strategy will supplement the SWMP and can be found in **Appendix 9.4** of the ES.

Construction Traffic Management Plan

3.2.20 A Construction Traffic Management Plan (CTMP) will be provided prior to the commencement of any construction works.

3.2.21 The CTMP will detail such matters as a travel plan for construction workers and the routing of their vehicles. Contractors will be required to comply with the provisions of the CTMP, which will be updated as necessary as construction progresses.

3.2.22 The following measures would be implemented during the construction phase through the CTMP to be secured via an appropriately worded planning condition:

- Agree AIL route modifications and improvements with PCC, North and Mid Wales Trunk Road Agent (NMWTRA), the south Wales Trunk Road Agent (SWTRA)and other relevant stakeholders.
- Where possible, the detailed design process would minimise the volume of material to be imported to Site to help reduce heavy good vehicle (HGV) numbers;
- Information regarding AIL deliveries;
- 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 may be established at the site entrance, depending on the views of PCC;
- Unless otherwise agreed with the road authorities, normal site working hours would be limited to between 07:00 and 19:00 (Monday to Friday) and 07:00 and 13:00 (Saturday), though component delivery and turbine erection may take place outside these hours. No work is proposed on Sundays and public holidays unless otherwise agreed with the Local Planning Authorities
- Provide construction updates on the project website and or a newsletter to be distributed to residents within an agreed distance of the Site;
- Adoption of a voluntary reduced speed limits at locations to be agreed with PCC, NMWTRA, and SWTRA;
- All drivers would be required to attend an induction to include:
  - A toolbox talk safety briefing;
  - The need for appropriate care and speed control;
  - A briefing on driver speed reduction agreements (to slow site traffic at sensitive locations through the villages); and,
  - Identification of the required access routes and the controls to ensure no departure from these routes.

3.2.23 PCC may request that an agreement be put in place to cover the cost of abnormal wear on its road network. This will be secured by a planning condition including;

- Preconstruction condition survey of local roads, to be used for assessing damage by construction traffic, and
- A pre-delivery survey of the AIL route to assess damage caused by AILs (thus reducing the potential liability of the wider route from years to months).
- Damage to road infrastructure caused directly by construction traffic arising from the Proposed Development will be repaired and street furniture that is removed on a temporary basis will be fully reinstated.
- There will be a regular road edge review, and any debris and mud would be removed from the carriageway using an onsite road sweeper to ensure road safety for all road users.

3.2.24 Before the AILs traverse the chosen transport route, the following tasks will be undertaken to ensure load and road user safety:

- Ensure any vegetation which may foul the loads is trimmed back to allow passage;
- Confirm there are no roadworks or closures that could affect the passage of the loads;
- Check no new or diverted underground services on the proposed route are at risk from the abnormal loads; and,
- Confirm the police are satisfied with the proposed movement strategy.

Abnormal Load Transport Management Plan (TMP)

3.2.25 A detailed Abnormal Load Transport Management Plan will be prepared to cater for all movements to and from the Proposed Development post-consent. An Outline TMP is included in **Appendix 11.2**. Upon confirmation of the candidate turbine, the finalised TMP will include the following further details:

- Procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking.
- A diary of proposed delivery movements will be used to liaise with the communities to avoid key dates, such as the Royal Welsh Show and other local events that could be affected.
- A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries, normal business traffic or school traffic.
- Proposals to establish a construction liaison committee to ensure the smooth management of the project/public interface with the Applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee will form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.

Soil Management Plan

3.2.26 A Soil Management Plan (SMP) will be provided prior to the commencement of any construction works.

3.2.27 An Outline Soil Management Plan (OSMP) is located at **Appendix 9.6** of the ES and provides a soil stripping programme, which describes and quantifies the volumes and types of soils affected by the Proposed Development. It also sets out the measures that shall be employed to protect soils during the construction and decommissioning stages of the development, minimising and mitigating the impact that the development has on soils. This includes the requirements that shall be adhered to in the stockpiling of soils.

3.2.28 The plan also describes mitigation measures to minimise the risk of damage to soil resources during construction.

3.2.29 The OSMP, which will be incorporated into the detailed CEMP, will ensure that soil is appropriately managed and re-used onsite. Prior to construction and on completion of ground investigations and micrositing, the OSMP will be refined and agreed with PCC and NRW where necessary, as part of the agreement of the detailed CEMP under the terms of a suitably worded planning condition.

Borrow Pit Restoration Plan

3.2.30 The Outline Borrow Pit Restoration Plan (OBPRP) is located in **Appendix 4.1** of the ES. It details:

- The step wise approach taken in respect of borrow pit location, extent and balance of environmental considerations;
- The borrow pit proposals for the Proposed Development and includes a description of the current land use at each proposed borrow pit location and soils present.
- The intended method of working and proposed beneficial after-use of the two proposed borrow pit locations that will be followed and provides outline details (appropriate to the pre-consent stage of a wind farm development) to achieve this after-use.

3.2.31 Following construction, the Site will be reinstated by the contractor. The anticipated type and extent of reinstatement is outlined below:

- Where a re-turfing method is appropriate, such as along track verges, the surface layer of soil and vegetation will be stripped and stored separately from the lower soil layers and replaced as intact as possible once construction is complete;
- Local reinstatement 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; and,
- Bare soil areas will be allowed to revegetate naturally in combination with reseeding using a low-density seed mix which mirrors local vegetation to help bind the soil more quickly.

3.2.32 Prior to the construction of the Proposed Development once ground investigation and detailed design has been undertaken, the Applicant will develop a detailed CEMP which will include a detailed Borrow Pit Restoration Plan (following the principles set out in the OBPRP).

Decommissioning Plan

3.2.33 The requirement for a Decommissioning Plan is anticipated to be secured by planning condition. The Outline Decommissioning Plan in **Appendix 4.5** of the ES describes the decommissioning proposals for the Proposed Development, as relevant to those aspects of the development that will require decommissioning at the end of the project's operational life (the substation and hardstanding's associated with the turbine bases).

3.2.34 The Plan also describes the approach to post-decommissioning monitoring and mitigation to ensure the post-decommissioning ground conditions (and hence the habitats that they contain and sustain) maintain their trajectory towards recovery.

Method Statements

3.2.35 Prior to commencement of relevant Site activities, as appropriate, the sub-contractor will be required to undertake risk assessments related to the activities that they are involved with and produce method statements for those activities. These should include measures to implement the CEMP in respect of particular tasks and locations.

3.2.36 Measures to prevent the spread of invasive plant species listed under Schedule 9 of the Wildlife and Countryside Act 1981 would be detailed in an Invasive Species Management Plan and accompanying method statement, which would be produced prior to the commencement of works on Site.

Local Community Liaison

3.2.37 The Applicant operates a policy of transparency with its communications. It acknowledges that during the construction phase there may be some impacts on the local community. The Applicant is committed to engaging with the local community to provide appropriate information and to be the first line of response to resolve issues of concern, should they arise.

3.2.38 The public will also be able to request information or make a complaint via the Applicant's local office (in person or by letter), by email or by telephone. All complaints will be logged in a register, together with a record of the responses and actions taken.

3.2.39 Access to Common Land will be maintained throughout the construction works where appropriate and where the public will not be put at risk of harm. Access to PRoW and BOAT will be maintained where safe to do so, otherwise alternative routes or safe passage through working areas will be provided.

Emergency Contacts and Procedure

3.2.40 Emergency procedures for the construction site will be developed and will be appropriate to the anticipated hazards and the Site layout. The emergency plan will include emergency pollution control measures that will consider Natural Resources Wales (NRW) guidelines. The procedures will contain emergency phone numbers and the method for notifying NRW, PCC and any other relevant statutory authorities. Contact numbers for key staff will also be included. The procedures will be displayed prominently at the site offices and all site staff will be required to follow them when appropriate.

4. Management of Environmental Issues

4.1 Outline

4.1.1 The Proposed Development will be constructed in accordance with all applicable legislation and with the current best practice, where feasible, for minimising the adverse effects of construction on the environment.

4.1.2 The detailed CEMP will set out more detailed measures to minimise and, where appropriate, mitigate, the potential environmental impacts of construction identified. In this regard, the full CEMP is anticipated to include measures relating to the following:

- Air Quality;
- Noise;
- Ecology and Biodiversity;
- Landscape and Visual;
- Archaeology and Cultural Heritage;
- Hydrology Hydrogeology & Geology; and
- Outdoor Access.

4.2 Air Quality

4.2.1 The construction mitigation measures considered as part of the project design to reduce the potential for air quality effects are considered to be standard industry practice for this type of work. Mitigation measures will be included in a Dust Management Plan (DMP) which will form part of the detailed CEMP and should cover:

- **Communication:** Occupiers of residential and business properties that are likely to be affected by the works will be notified in advance of the works. The EPM and/or Construction Project Manager (CPM) would act as the first point of contact on environmental matters for PCC, other external bodies and the general public. Information regarding the nature and duration of the works and named contact details for key members of staff will be displayed on a noticeboard near the site;
- **Site Management:** Record all dust and air quality complaints, identify the cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. Make the complaints log available to PCC if requested and record any exceptional incidents that cause dust and/or air emissions and the action taken to resolve the situation in the logbook;
- **Monitoring:** Carry out regular site inspections to monitor compliance with the DMP, record inspection results and make an inspection log available to PCC if requested and increase the frequency of site inspections by the person accountable for air quality on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with PCC if necessary and agree on baseline monitoring periods as necessary;
- **Site Preparation and Maintenance:** Plan site layout so that machinery and dust-causing activities are located away from receptors, as far as reasonably possible. Remove materials that have the potential to produce dust from the Site as soon as possible, unless being re-used on site and, if they are to be re-used on-site, cover, seed, or water to prevent wind whipping;
- **Vehicle/Machinery and Sustainable Travel**: Ensuring all vehicles switch off engines when stationary and avoid the use of diesel or petrol-powered generators by using mains electricity or battery-powered equipment where practicable. Impose and signpost a maximum speed limit on surfaced and un-surfaced haul roads and work areas. Impose a speed limit and visible warning lights on the section of the PRoW shared with public users and produce a CTMP to manage the sustainable delivery of goods and materials.
- **Construction Equipment:** 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 and ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible; and,

- **Waste Management:** Avoid bonfires and the burning of waste materials. Bag and remove any biological debris.

4.3 Noise

4.3.1 To reduce the potential effects of construction noise, the following good practice measures are proposed:

- Those activities that may give rise to audible noise at the surrounding properties and heavy goods vehicle (HGV) deliveries to the Site (except for abnormal loads) will be limited to the hours 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturdays. Those activities that are unlikely to give rise to noise audible at noise-sensitive receptors may continue outside of the stated hours, such as small deliveries. Concrete pours for foundation or turbine component lifting may also be required outside the above working hours, but this will not include the associated preparation and mobilisation work which will be restricted to the above working hours.
- Traffic movements will be managed by a Construction Traffic Management Plan (CTMP) (see **Appendix 11.2**) . Turbine deliveries will only take place outside these times with the prior consent of PCC and relevant authorities, and this will be controlled by an Abnormal Load Transport Management Plan as part of the CTMP.
- All construction activities shall adhere to good practice as set out in BS 5228.
- All equipment will be maintained in good working order and any associated noise attenuation such as engine casing and exhaust silencers shall remain fitted at all times.
- Where flexibility exists, construction activities will be separated from residential neighbours by the maximum possible distances.
- Construction plant capable of generating significant noise and vibration levels will be operated in a manner to restrict the duration of the higher magnitude levels.
- If blasting is used at the proposed borrow pits:
  - Blasting should take place under strictly controlled conditions with the agreement of PCC and relevant authorities, at regular times within the working week, that is, Mondays to Fridays, between the hours of 10.00 and 16.00.
  - Good practices during the setting and detonation of charge should be followed, in order to control air overpressure, in line with guidance set out in Minerals Technical Advice Note (Wales) 1 (MTAN1) and British Standard BS 5228-2.
  - Vibration levels at the nearest sensitive properties are best controlled through onsite testing processes, with progressively increased charges, carried out in consultation with PCC.

4.4 Ecology and Biodiversity

4.4.1 Measures to control potential construction effects relating to biodiversity would be consistent with current industry good practice for construction. As a minimum, the sub-contractor would ensure that its statutory obligations under environment, health and safety legislation are fulfilled. Measures are expected to include the following:

- Work area buffer zones will be implemented around sensitive areas (priority habitat, water features etc) in a manner consistent with the existing rights over common land;.
- An updated bat survey will be carried out pre-construction on features within 50 m of works that have the potential to support roosting bats and which could be directly or indirectly affected by the Proposed Development. If any evidence of a roost is identified, additional mitigation and/or compensation will be identified and implemented to ensure no breach in legislation will occur.
- A pre-construction survey will be carried out and an invasive species management plan will be developed to eradicate invasive species present on Site and ensure biosecurity measures are implemented to avoid the introduction of invasive species during construction. A Biodiversity Risk Assessment will also be implemented.
- The Applicant will appoint a suitably qualified Ecological Clerk of Works (ECoW) prior to the commencement of any construction activities take place. The ECoW will be present on a regular basis to oversee site clearance and construction activities, provide toolbox talks to site personnel with regards to priority species and habitats, as well as undertake monitoring works, as appropriate.

- A Site speed limit of 15 mph will be in place at all times to reduce the risk of faunal collisions with construction vehicles;
- Excavations will be covered at the end of each working day, or a wooden plank placed inside to allow protected faunal species to escape, should they enter the hole. Any temporarily exposed open pipe system will be capped in such a way as to prevent wildlife from gaining access;
- Where appropriate and safe to do so, all construction working areas with potentially suitable open habitats for reptiles will initially be cut during the active season for reptiles (April to October), under the guidance of the ECoW, to reduce the height of vegetation and make it less attractive for reptile habitation. If this is done within the bird breeding season (see above) a check for nesting birds will be carried out prior to vegetation cutting, and any nest location protected with a species-specific buffer until the young have fledged. The ECoW would move any potential refugia or hibernacula from working areas by hand. Working areas would then be kept unsuitable for reptiles through regular cutting until construction in that location commences;
- In order to prevent pollution of watercourses within the Site (with particulate matter or other pollutants such as fuel), standard construction practice measures will be employed as set out in **the Pollution Prevention Plan section above.** Full details of construction mitigation measures will be provided in the CEMP.

4.4.2 A Habitat Management Plan (HMP), as outlined in **Appendix 7.5** of the ES, will be implemented to create new habitats and net benefits for biodiversity onsite. This will act as a means of absorbing carbon emissions and help to intercept heavy rainfall and associated flooding.

4.4.3 The following has been proposed as part of the HMP (see **Appendix 7.5** for further details):

- Dry heath creation within the two proposed borrow pits and adjacent land;
- Management of four Ancient Semi-Natural Woodlands and woodland planting;
- Riparian restoration along stretches of the Cwmblaenerw Brook and Milo Brook;
- The creation of two new ponds suitable for GCN at the northern end of the Site near the substation;
- Hedgerow restoration and creation for an area north of the Site, near the substation; and
- Monitoring of grazing habitats on Aberedw and Hungry Green Common.

4.5 Ornithology

4.5.1 A Bird Protection Plan (BPP) will be drafted and agreed with NRW and implemented prior to construction commencing. The BPP will detail protocols for maintaining compliance with relevant species protection legislation and best practice during the construction phase, to ensure that bird species and important sites for birds (nests, roosts, key feeding sites) are safeguarded from disturbance during critical periods.

4.5.2 The following requirements will be included in the BPP:

- Timing of work: Where possible, tree-felling and ground clearance should be scheduled outside of the breeding bird season but should also take account of winter roosts.
- Pre-construction surveys: If work is scheduled to take place during the breeding bird season or at other sensitive times, pre-construction bird surveys should be undertaken within a series of distance buffers from construction works, with specific buffer distances and methods dependent on target species, affected habitat and the likely stage of the breeding cycle.
- Nest protection: Protocols should be developed to ensure nests and other sensitive bird sites are protected from destruction, or to ensure that disturbance is prevented or minimised during construction activities.
- Toolbox talk: The BPP should be overseen by a suitably experienced Ecological Clerk of Works who will oversee the delivery of ‘toolbox talks’ to contractors to make them aware of bird sensitivities, legislative requirements and relevant working protocols.

4.6 Landscape and Visual

4.6.1 In order to minimise impacts arising from construction, the construction of turbines and tracks associated infrastructure will follow the Outline and detailed CEMP as well as an Outline Soil Management Plan (oSMP) (see

Appendix 9.6) which will include arrangements for implementation of various aspects of the works such as turf and soil removal, storage and replacement, and stream crossings. The CEMP and SMP will also set out restoration of landscape earthworks, soils and surface vegetation once the construction phase is complete.

4.6.2 Mitigation measures will cover both the construction activities and the remediation of the site following the completion of the works. It is expected that the mitigation measures could include the following:

- The tracks will be finished with locally sourced (where possible) capstone / wearing course of graded crushed rock (the adjacent grassland will be allowed to extend across the edges and middle, reducing the extent of the visibility of tracks in the landscape);
- Measures such as grass reinforcement may be applied where the track widens on steeper bends and in passing places;
- The engineered appearance of any embankments will be smoothed out to ensure any landforms blend in with topography (using sinuous forms rather than straight lines) – and will be reinstated through measures such as re-seeding with locally occurring species, top-soil reuse and/or turf replacement to blend in with the surroundings; and
- The palisade fencing around the substation and the control building within the substation will be painted in a colour that assimilates into the winter colours found in the landscape on the Site (using the Natural Colour System), and will be agreed with PCC.

4.7 Archaeology and Cultural Heritage

4.7.1 Good practice measures to prevent, reduce, and/or where possible offset potential physical effects to historic assets, including previously unrecorded buried archaeological remains, are proposed. Measures which will be adopted include:

- The temporary fencing off or marking out (as appropriate) of historic assets in proximity to the construction footprint to prevent accidental damage during construction.
- Implementation of a working protocol should previously unrecorded buried archaeological remains (e.g. archaeological deposits and features) be discovered.
- The use of a Construction Environmental Management Plan (CEMP), supplemented by toolbox talks as appropriate to highlight the historic environment sensitivities of areas of the Site to those working on the Proposed Development.
- Appointment of an Archaeological Clerk of Works (ACoW) to supervise targeted ground-breaking operations and provide onsite advice on avoidance of effects (e.g. providing onsite identification and recording of previously unrecorded historic assets and liaising with the local authority archaeological adviser (Heneb/CPAT) as necessary).

4.8 Hydrology, Hydrogeology and Geology

4.8.1 The temporary and permanent works will ensure that any surface water flow towards sensitive receptors does not increase as a result of the works. It is expected that mitigation measures for the construction phase will be included in the SuWMP, which shall contain:

- A pollution risk assessment of the Site and the proposed activities;
- Identification of all Controlled Waters that may be affected by the works and temporary discharge points to the onsite drainage ditches;
- Details on how surface water run-off will be dealt with on-site and any run-off to an offsite receptor (e.g. watercourse) is not increased beyond the existing rate;
- Details on the potential contaminants and sediment loads which could originate from the works and mitigation measures for this, including control of any potential pollution from concrete works, fuel and chemical storage;
- Details on the monitoring methods which will be used;

- Temporary drainage techniques including run-off interception during construction of the permanent drainage solution. This may include silt dams and settlement basins; and,
- Construction material and/or spoil will be positioned away from drainage systems or surface watercourses and no hazardous substances will be stored within close proximity to the drainage network.

4.8.2 The Outline CEMP provisions to manage surface water runoff and pollution will be sufficient in protecting the Private Water Supply (PWS) during construction. It is expected that mitigation measures for the construction phase shall include:

- For excavations, precautions will be taken to scan for live services and protect them during the work (e.g. from being damaged or polluted by construction runoff). Appropriate management of the effect of construction on groundwater to prevent significant drawdown (e.g. in peatland or GWDTEs) or pollution from runoff;
- Appropriate bunding and shuttering will be used around concrete handling areas to prevent contaminated runoff or spillage. Correct disposal of any waste or surplus concrete in agreed suitable locations both onsite and offsite;
- Appropriate bunding will be used around areas handling fuel, oil and chemicals. Designated areas will be identified for refuelling which will be positioned away from watercourses and existing drainage assets. Where fuelling or car parking will take place (e.g. in the site compound), oil separators will be used;
- Stockpiles of material will be covered or otherwise contained to prevent sediment runoff. A CTMP will be produced as an appendix to the detailed CEMP. This will include controls to limit the sediment runoff from vehicle movements. This will also include controls to limit the sediment impact on the existing public roads. Dedicated plant washing areas will be identified to control sediment runoff; and,
- Contingency plans and emergency procedures will be developed with the construction team. Pollution prevention consumables and plant (e.g. spill kits) will be readily available at all times. All construction staff will be trained in the effective use of spill kits and Toolbox Talks will be used to raise awareness of all preventative measures for water pollution. The Emergency Response Plan and Pollution Prevention Plan will be produced and reviewed throughout the works.

4.8.3 Site discharges and temporary water abstraction will be regulated in line with NRW guidance for discharges to surface water and groundwater.

Surface Water

4.8.4 An outline Water Quality Monitoring Plan is set out in **Appendix 9.7: outline Water Quality Monitoring Plan.** This details the proposed water quality monitoring to be undertaken including the sampling areas/ locations, methodologies, frequency, laboratory analysis and assessments to be undertaken.

4.8.5 In order to inform the subsequent construction phase monitoring, a well understood baseline data set is required. To understand seasonal fluctuations, it is considered a minimum 1 year-long monitoring period will be sufficient to characterise conditions on the Site.

4.8.6 During the 12 month baseline monitoring period, monitoring of all monitoring locations (see Appendix 9.7) in the Monitoring Network will be undertaken on a bi-monthly basis, totalling six visits across the year. This will provide data on a full four seasons of site conditions.

4.8.7 The construction phase is currently projected to last up to 15 months. Construction phase monitoring of the Monitoring Network will be undertaken bi-monthly during this period, with an estimated seven monitoring rounds in total. This monitoring shall be undertaken on the same series of monitoring points as was monitored during the baseline period. However, it is envisaged that not all locations will be monitored on every visit, due to the anticipated phased nature of the build programme. The requirement for monitoring at each location will be determined by whether there is construction activity within the catchment of that monitoring point.

4.8.8 In addition to the regular water monitoring that will be undertaken by the Developer, the Main Contractor will be required (via the Construction Environmental Management Plan) to undertake regular monitoring of the water environment during the construction phase. This will be required both to document compliance with the CEMP, but also adherence to Ordinary Watercourse Consents and any other consent or permits that may be required to facilitate construction. The scope and frequency of this monitoring will be determined by the Main Contractor and agreed with both the Developer and any determining/ consenting authority. It is envisaged that this will comprise monitoring on at least a weekly frequency, increasing to daily inspections during periods of heavy/ prolonged rainfall

and/or construction within the 50m watercourse buffer. During the operational phase, quarterly monitoring will be conducted during the first year of operation. This frequency allows for seasonal variability to be captured and ensures potentially delayed impacts from construction or operational activities are identified. During this period, the same triggers and mitigating actions will remain available to address any adverse effects, should they occur.

Groundwater

4.8.9 Outline mitigation options are set out in **Appendix 9.4** to address potential impacts on GWDTE A, B, C and D. The following sequence of actions will be undertaken to inform the need for, scope of and detailed design of such measures, in order that any adverse effects are avoided, minimised or, if necessary mitigated:

- Installation of groundwater monitoring wells in the area of each of these three GWDTEs during the pre-commencement ground investigation.
- Groundwater elevation monitoring.
- Construction of a hydrogeological conceptual model for groundwater connectivity between the GWDTE and the Proposed Development.
- Micrositing to avoid adverse effects, if possible (within the 50 m micrositing allowance being applied for, noting any directional restrictions).
- Detailed drainage design work to avoid, minimise and if necessary, mitigate effects (e.g. by returning groundwater captured in areas of cut back to the GWDTE).

4.8.10 In addition, a series of measures to manage pollution during the construction period, such that GWDTEs are suitability protected from leaks, spills and construction site surface water run-off are will be set out in the CEMP.

Private Water Supplies

4.8.11 The following mitigation measures will be implemented to minimise the likelihood and consequence of potential impacts:

- Ensure culverts installed with sufficient capacity on watercourses which run beneath access track.
- Incorporate drains beneath hardstanding area and access track to facilitate surface water to pass.
- No plant, vehicles, chemicals or pollutants to be located or stationary within 250 m of identified PWS source locations.
- An appropriate Water Quality Monitoring Plan (WQMP) will be designed for those PWS identified as being at risk of water quality or quantity deterioration, to include a comprehensive sampling programme.
- Frequent communication and liaison with PWS property owners for the duration of time construction is within the PWS catchment areas – Principal Contractor to provide a nominated person as point of contact.
- In the event that a PWS is affected by activities associated with the construction works, contingency supply arrangements will be ready for implementation. This will include ensuring that alternative sources of drinking water and water for general use will be provided if required.
- Where a temporary alternative supply is provided, the existing supply would be reinstated following the construction and a water quality and quantity monitoring programme will be employed to ensure the water supply is reinstated to baseline conditions.

Flooding and Drainage

4.8.12 Surface water drainage will be designed to meet the requirements of the statutory standards for sustainable drainage systems as described in the Outline Drainage Strategy (See **Appendix 9.4**). The following measures relevant to flooding and drainage are included in the strategy:

- All runoff from the substation and turbine footprints will be stored and infiltrated up to the 1 in 100 year event (plus Climate Change allowance of 40%) to manage surface water runoff effectively and return runoff back to the ground as close as possible to the source. Routine inspections of drainage features will ensure the presence of scour accumulating over time will be noted, and mitigation measures employed if necessary.

- Watercourse crossings, where required, will be designed to maintain and not reduce the existing capacity of the channels.
- Access tracks will be served by a network of surface water infiltration trenches, to accommodate runoff during a 1 in 30 year event (plus Climate Change allowance of 40%). These will include check dams to slow the flow and provide water treatment including removal of sediment. Relief drains will cross the access tracks at regular intervals to maintain the existing flow paths, in particular with reference to GWDTEs, and where surface water flowpaths have been identified that may feed areas of peat or other wetland habitat. This is discussed in detail in **Appendix 9.4**. Drainage will be installed before or during access track construction, rather than afterwards to ensure that the access track design is not compromised.

Water Resources

4.8.13 In order to minimise the effects of the Proposed Development on water resources, a Surface Water Management plan will be prepared as an appendix to the CEMP (see section 3.2.18).

4.8.14 At least three groundwater monitoring wells will be installed in the footprint of each proposed borrow pit, and data gathered on the groundwater elevation and behaviour. This information will then be used to inform the drainage design of the borrow pit, ensuring that the associated recharge/ soakaway trench is situated on the down-gradient side of the excavation (thus maintaining the overall hydrogeological regime).

Geology and Soils

4.8.15 The Proposed Development requires that a significant volume of soil will be stripped. These soils will then be managed according to different scenarios:

- Immediate restoration upon excavation (i.e. simultaneous stripping and restoration on proximal development parcels).
- Temporary stockpiling for a short period (weeks) and then restoration (e.g. where earthworks cut/fill is required).
- Temporary stockpiling for a longer period (months) prior to restoration (e.g. on the footprint of temporary hardstand areas).
- Placement within the final landscaped form of development (for example placing thicker soil on earthworks batters than was initially excavated). These areas of soil could then be used in the decommissioning phase in due course. These soils shall be those associated with the stripping of permanent hardstanding and tracks.

4.8.16 The OSMP at **Appendix 9.6** secures the measures that will be implemented to minimise the effect that the Proposed Development has on soils in all of these scenarios.

4.8.17 **Appendix 4.1** provides an Outline Borrow Pit Restoration Plan, which sets out how the borrow pits will be permanently restored at the end of the construction period.

4.8.18 Normal practice in energy park development is to undertake a detailed ground investigation beneath all pieces of proposed infrastructure and track, in order that the ground conditions can be characterised and detailed geotechnical design can be compiled. This process will be followed for the Proposed Development, in adherence with BS5930:2015 and Eurocode 7.

4.8.19 Good practice in undertaking ground investigation and geotechnical design in areas of steep slopes and potential slope instability requires that the scope of ground investigation and geotechnical design be expended to include consideration of, and design against, ground instability. Again, this process will be followed for the Proposed Development, in adherence with BS5930:2015 and Eurocode 7.

Peat

4.8.20 As outlined in **Appendix 9.6 (OSMP)**, the following peat discovery and management strategy shall be implemented during pre-construction Site preparation or groundworks to ensure environmentally responsible handling of any currently undiscovered peat on Site.

4.8.21 Upon discovery of peat:

- Immediate cessation of works. All intrusive or potentially disruptive activities in the immediate vicinity of the area shall be halted.

- Notification and delineation of the peat. The discovery shall be reported to the Environmental Manager or designated specialist, and the affected area shall be delineated and secured to prevent inadvertent disturbance.
- Site-specific assessment of the peat. A qualified geotechnical or environmental specialist shall undertake an in-situ assessment to determine the extent, depth, classification and hydrological context of the peat deposit.
- Retention in-situ of the peat. Wherever feasible, peat shall be preserved in-situ to maintain local hydrological and ecological integrity.
- In cases where relocation is unavoidable due to engineering or safety constraints:
  - A Peat Management Plan (PMP) shall be developed outlining excavation, transport, storage, and reuse/reinstatement methodologies.
  - Peat shall be kept hydrated throughout handling, and rewetting protocols shall be applied at the deposition Site to preserve its ecological function.
  - Environmental constraints, including proximity to watercourses, protected habitats, and buffer zones, shall be strictly observed.
- Monitoring post-relocation. The condition of the peat and the receiving Site shall be subject to ongoing monitoring for moisture content, settlement, and ecological response, in accordance with CEMP requirements.

4.9 Outdoor Access

4.9.1 The majority of the Site is located on Registered Common Land. Additionally, and various PRoWS cross the Site. Ensuring continued, safe access to these areas will be an important consideration for the detailed CEMP.

4.9.2 There will be vehicular control of access into the Site at the eastern part of the Site at the identified entrance and egress point, though it will not be possible to prevent access onto the site to graziers, pedestrians, horse riders, cyclists or those driving all-terrain vehicles at other locations.

4.9.3 Consideration should be given to the requirement to maintain access across the Registered Common Land. This may incorporate short, discrete lengths of fencing around hazardous areas, temporary excavation protection measures, or visual warnings/deterrents.

4.9.4 Borrow Pit activities are likely to result in steep rock faces due to quarrying activities. These will be fenced off for safety reasons where possible. The Borrow Pits will be reinstated.

Onsite Measures Delivered Using a Path Management Plan (PaMP)

4.9.5 It is recognised that it will be necessary to divert tracks, paths or PRoWs, either temporarily or permanently, for both the construction and operational phases of the Proposed Development. Therefore, a Path Management Plan (PaMP) will be agreed upon with PCC and included in the detailed CEMP and will cover the following:

- Proposals to establish a construction liaison committee to ensure the smooth management of the project/public interface with the Applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee will form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising;
- Details of temporary closures that may be needed and whether alternative routes can be provided;
- Details outlining the management if temporary accommodation work affecting rights of way and access;
- Measures to manage the risks associated with construction traffic encountering members of the public, especially where the room for avoidance is limited;
- Public information including legal and advisory signage; and
- Plans for the reinstatement of public paths.

4.9.6 Within the PaMP, consideration has been given to pedestrians, cyclists and equestrians alike due to potential interactions between construction traffic and users of the PRoWs, Common Land, Open Access Land and tracks during the construction and operational phase. Appropriate measures will be formulated into a PaMP.

4.9.7 Users of the PRoWs will be separated from construction traffic using barriers (where permitted and appropriate) and this will ensure that safe access to the Site for recreational purposes will be maintained. Crossing points will be provided where required, with path users having right of way.

4.9.8 Appropriate Traffic Signs Manual Chapter 8[1] compliant temporary road signage would be provided to assist at these crossing points for the benefit of all users.

4.9.9 Discussions with local equestrian groups will be held during the construction period to keep riders informed of works and activities. These discussions will also allow the contractors to tailor their toolbox talks to specific equestrian issues.

4.9.10 The main factors causing fear in horses in this situation are:

- Something approaching them, which is unfamiliar and intimidating;
- A large moving object, especially if it is noisy;
- Lack of space between the horse and the vehicle;
- The sound of air brakes; and,
- Anxiety on the part of the rider.

4.9.11 The British Horse Society has previously recommended the following actions that will be included in the Site training for all HGV staff:

- On seeing riders approaching, drivers must slow down and stop, minimising the sound of air brakes, if possible;
- If the horse still shows signs of nervousness while approaching the vehicle, the engine should be shut down (if it is safe to do so);
- The vehicle should not move off until the riders are well clear of the back of the HGV;
- If drivers are wishing to overtake riders, please approach slowly or even stop in order to give riders time to find a gateway or lay by where they can take refuge and create sufficient space between the horse and the vehicle. Because of the position of their eyes, horses are very aware of things coming up behind them; and,
- All drivers delivering to the Site must be patient. Riders will be doing their best to reassure their horses while often feeling a high degree of anxiety themselves.
- Discussions with local equestrian groups will be held during the construction period to keep riders informed of works and activities. These discussions will also allow the contractors to tailor their toolbox talks to specific equestrian issues.

Staff Travel Plan

4.9.12 A Staff Travel Plan will be deployed where necessary, to manage the arrival and departure profile of staff and to encourage sustainable modes of transport where possible, especially car-sharing. A package of measures could include:

- Appointment of a Travel Plan Coordinator;
- Provision of public transport information;
- Mini-bus service for transport of site staff;
- Promotion of a car sharing scheme; and,
- Car parking management.

Public Information

4.9.13 Information on the turbine convoys will be provided to local media outlets to help assist the public. These could include:

[1] Department for Transport/Highways Agency, Department for Regional Development (Northern Ireland), Transport Scotland & Welsh Assembly Government (2009): Traffic Signs Manual, Chapter 8 – Traffic Safety Measures and Signs for Road Works and Temporary Situations

- Local newspapers;
- Online media outlets;
- Community Councils; and,
- PCC website.

4.9.14 Information will relate to expected AIL vehicle movements from the Port of Entry (PoE) through to the Site access junction. This will assist residents becoming aware of the convoy movements and may help reduce any potential conflicts.

4.9.15 Site entrance tracks will be maintained and monitored during the operational life of the Proposed Development. Regular maintenance will be undertaken to keep the Site access track drainage systems fully operational and to ensure there are no run-off issues onto the public road network.