



# Erebus Floating Wind Farm

## Outline Construction Environmental Management Plan

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Client: Blue Gem Wind Ltd  
Project/Proposal No: 2923  
Version: 1.0  
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# Document Information

## Revision History

Version	Date	Authored	Reviewed	Approved	Notes
1.0	2021-12-09	Jean Chabrelie	E Stella	J Hazzard	Client Issue

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# 1. Introduction

This Outline Construction Environmental Management Plan (OCEMP) refers to the construction of the Proposed Development (PD), a demonstration-scale Floating Offshore Wind project, by Blue Gem Wind Ltd (hereafter referred to as 'the Applicant'). The Project will be Wales' first floating offshore wind project, and the Applicant believes that starting with a demonstration project will help to capture the highest local supply chain content and will also maximise knowledge transfer while facilitating a sustainable transfer to a low carbon economy.

The key components of the Project are:

- Between 6 and 10 floating Wind Turbine Generators (WTGs), with a total export capacity up to 100 MW, and the associated semi-submersible floating platforms and mooring infrastructure;
- Array cables and an offshore export cable corridor to landfall;
- Onshore cabling between landfall and the grid connection; and
- Onshore substation at the grid connection point.

This OCEMP only covers the onshore components associated with the PD, namely:

- the onshore cabling between landfall and the onshore substation;
- the onshore substation; and,
- the onshore cabling from the onshore substation to the grid connection point.

The OCEMP will be updated and finalised post consent in line with any relevant planning condition and in agreement with Natural Resources Wales (NRW), the Pembrokeshire County Council (PCC) and the Pembrokeshire Coast National Park Authority (PCNPA).

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

## 1.1 Purpose

The CEMP will be a key document assisting the Applicant and Principal Contractor in complying with set planning conditions. The CEMP will be a live document, updated as required throughout the planning and construction process.

The aim of this OCEMP is to establish the main mitigation and control measures that will be utilised to provide robust environmental management throughout the construction period to avoid or minimise the adverse effects of the PD. On confirmation of Principal Contractor, the OCEMP will be updated to reflect specific proposed construction methods and the document reviewed and agreed with NRW, PCC and PCNPA before construction works begin. The CEMP will therefore evolve and is subject to refinement, amendment and expansion as necessary.

Throughout the planning and construction phases of the PD, the CEMP will be subject to continual review to address, for example:

- Any conditions stipulated in the Planning Permission;
- Any update in current legislation;
- To ensure it reflects good practice during construction;



- To ensure it incorporates the findings of any pre-construction site investigations and surveys; and
- To accommodate the working practices of the appointed Principal Contractor.

## 1.2 Content

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

- Outline Pollution Prevention Management Plan;
- Outline Construction Noise Management Plan ;
- Outline Construction Dust and Air Quality Management Plan;
- Outline Site Waste Management Plan;
- Outline Water Quality and Pollution Management Plan;
- Outline Biodiversity Management Plan;
- Outline Construction Traffic Management Plan, and
- Outline Archaeological Management Plan.

## 1.3 Site and Surroundings

The Project location is provided in the Environmental Statement (ES) Volume 2 Figure 1.1. The Floating Offshore Wind (FLOW) array area is located approximately 35 km southwest of the Pembrokeshire coastline in the Celtic Sea. The Celtic Sea is an area of the Atlantic Ocean, off the south coast of Ireland, the southwest coast of England and Wales, with the East Irish Sea to the north. Water depths at the array area are between 65-85 m below the lowest astronomical tide (LAT), with the site area measuring approximately 43.5 km<sup>2</sup>.

The onshore elements of the Proposed Development are located within the administrative boundaries of Pembrokeshire County Council and Pembrokeshire Coast National Park Authority, in southwest Wales. Within this area, the Proposed Development onshore cable corridor stretches between the landfall at West Angle Bay to the onshore substation site south of Pembroke Power Station. The onshore substation site is on gently sloping land to the west of Lambeeth Farm on a minor road close to Goldborough Road.

The Peninsula can be broadly characterised as agricultural with a strong coastal influence. It is defined by the sea and coast that surround it with the Bristol Channel to the south and west and Milford Haven to the north. Much of the coast in the area is rugged with cliffs stretching around the Peninsula. The exception to this is the sandy beaches found at Freshwater West and West Angle Bay, which are popular visitor locations and the mud flats found at Angle Bay and Pembroke River. Large swathes of mudflats are a notably common feature of the northern coastline of the Peninsula, and in the context of the site are associated with Pembroke River.

The agricultural landscape of the Peninsula is largely arable in nature with occasional wooded valleys, areas of dunes and extensive hedgerows along field boundaries and roadsides. The cliffs that define the coastal edge are incised and, in many places, fields are found to abruptly meet the cliff edge with only a narrow strip of vegetation. The Pembrokeshire Coastal Path/Wales Coast Path follows the coastal edge closely in these sections weaving in and out of the rugged and incised coastal cliffs.



The landscape of the Study Area is rural in nature although the roads are often busy with visitors to the beaches in the area and travelling to and from the Pembroke Power Station and Valero Oil Refinery. As a result, the area has a relatively busy feel on the very few routes in and out of the Angle Peninsula.

## 1.4 Proposed Development Description

An offshore export cable up to 49 km in length will transport energy from the array area to the landfall at West Angle Bay. The preference is for horizontal directional drilling (HDD) to be utilised to install a duct through which the offshore export cable can be pulled ashore onshore. However, in the event that local geotechnical conditions prevent the safe HDD operations, then open cut trenching is proposed as a contingency option.

A transition joint bay will be located near the shore in the landfall area to connect the offshore and onshore cables. This is proposed to be situated behind the HDD entry point and will comprise a small bay situated at and below ground level.

The transition joint bay will be connected to the onshore substation via a 66 kV underground transmission cable, approximately 12.5 km in length. The onshore site boundary runs from the landfall at West Angle Bay, through Castlemartin peninsula to the proposed onshore substation, located approximately 0.9 km east of Wallaston Cross toward Lambeeth Farm. The onshore substation will be connected to the 400 kV grid network at Pembroke Power Station via a 132 kV cable which is approximately 2 km in length. This will allow the project to connect to the National Grid Electricity Transmission (NGET) for distribution to the network.

To aid design development and environmental assessment the onshore cable corridor has been divided into seven sections. An overview of the full onshore site boundary is provided in the ES Volume 2, Figure 4.2. The onshore site boundary has been divided in seven sections (ES Volume 2 Figure 4.3 to 4.9) and description of each section is provided in the ES Volume 1, chapter 4: Proposed Development Description.



## 2. Document Control

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

**Table 1 Document Control**

Status	Date Issued	Prepared by	Summary of alterations
Version 1.0	December 2021	ITPEnergised	Outline CEMP

**Table 2 Distribution List**

Organisation	Contact Name	Email	Telephone Number
Applicant – Blue Gem Wind Ltd	TBC	TBC	TBC
Principal Contractor	TBC	TBC	TBC
Ecological Clerk of Works (ECoW)	TBC	TBC	TBC
Archaeological Clerk of Works (ACoW)	TBC	TBC	TBC
Natural Resources Wales (NRW)	TBC	TBC	TBC
Pembrokeshire County Council (PCC)	TBC	TBC	TBC
Pembrokeshire Coast National Park Authority (PCNPA)	TBC	TBC	TBC





## 3. Responsibilities

### 3.1 Environmental Policy and Management Systems

The Principal Contractor will ensure that copies of their environmental policies are clearly displayed on site notice boards during the construction period. All employees are expected to comply with the requirements of the Environmental Policy and the requirements of the Environmental Management System (EMS) under a suitable accreditation such as ISO14001.

The Applicant and its Principal Contractor expects its employees and support staff (contractors, sub-contractors, suppliers etc.) to actively promote and administer a strong environmental culture. To achieve this, a number of initiatives will be implemented during the construction phase from Day One. This will include the use of environmental inductions, poster campaigns to raise awareness of topical subjects (such as seasonal activities and timings) and toolbox talks (TBT) involving all members of the project team and site workforce.

As part of the EMS for the site, a Project Environmental File (PEF) will be maintained. Within this PEF, a legislation register will be stored which will be reviewed periodically and updated as necessary. Any changes to relevant environmental legislation will be disseminated to project management immediately, after which the method statements of any affected construction activities will be amended as necessary.

### 3.2 Consents and Licences

A register of required consents and licences will be held in the PEF, including the relevant reference numbers and responsible/named competent persons.

### 3.3 Roles and Responsibilities

It is the responsibility of all staff involved with the PD, including the Applicant, Principal Contractor and sub-contractors, to ensure the correct implementation of the CEMP and the environmental mitigation contained within.

During the construction phase of the PD the key environmental responsibilities are summarised below:

- **The Applicant** – responsible for ensuring that the PD is built in accordance with the planning conditions and that all environmental mitigation measures stated within the ES and the CEMP are implemented.
- **Principal Contractor** – responsible for regularly reviewing and updating the CEMP and ensuring that all staff and sub-contractors abide by and implement the CEMP. The Principal Contractor will be responsible for the implementation of the CEMP and all the environmental mitigation measures outlined in the ES.
- **Consent and Environment Manager** – A Consent and Environment Manager (CEM) will be appointed as part of the Applicants or Principal Contractors team and shall have overall responsibility for the management of the construction phase. The Applicant and Principal Contractor will ensure that a suitable, independent person with appropriate knowledge and experience of similar scale or type of projects will be employed.

The CEM will:



- Programme any required pre-construction surveys into the construction schedule. These will then be the responsibility of the ECoW (Ecological Clerk of Work);
- Progress any discharge of conditions, especially those that require access agreements to be in place to allow for pre-commencement sampling or surveying to be undertaken. This includes private water supplies;
- Ensure all required consents are in place before work starts and compliance with consents;
- Ensure that all mitigation measures and commitments are implemented properly and effectively;
- Undertake and/or organise any required pre-construction surveys, baseline surveys or samples as required, and continue with any monitoring to be undertaken during construction as required;
- Supervise construction processes with potential for environmental consequences such as HDD operations and installation of temporary site drainage;
- Ensure compliance with the topic-specific Management Plans by undertaking spot checks such as audits on the timing of Heavy Goods Vehicles (HGVs) and abnormal load deliveries, speed checks on the approach to site and along access tracks throughout the site, observations of works in sensitive areas (if not already undertaken by a specific ECoW);
- Undertake weekly audits/site checks;
- Ensure environmental and waste requirements are included on requisitions and in subcontracts and orders;
- Ensure oil, including diesel, is stored in properly bunded tanks/drip trays;
- Report incidents and non-conformances to the Applicant, Principal Contractor and relevant authorities in line with the reporting procedure of this CEMP;
- Include environmental performance, review of contract objectives and targets (including environmental), review of Incidents and non-conformances at the project review meetings;
- Ensure employees and subcontractors implement the controls outlined in the finalised and approved CEMP and any other appropriate plans, mitigation measures or commitments;
- Ensure employees and subcontractors receive induction training (including project environmental issues) and toolbox talks, as appropriate;
- Ensure personnel needed for audits are available when required;
- Verify actions resulting from corrective action requests and observations raised during audits are completed by the deadlines;

The CEM will also act as the main point of contact between the:

- Regulators such as NRW, PCC and PCNPA;
- Local stakeholders;
- Local communities; and
- The public and visitors to the area.



The CEM will be the focal point for queries, comments and questions on project progress meetings, reporting and also communication on critical activities of the PD. This will include communicating when pre-construction works are likely to commence and then keeping the local communities and stakeholders aware of the continuing activities which will occur during the construction phase including regular updates on progress.

The CEM will specifically communicate the following construction activities to local communities (please note this list is not exhaustive):

- Works which involve the loss or temporary replacement of access (for example road diversions and the recreational routes);
- Works adjacent to or within key sensitive areas such as watercourses;
- Temporary closures of recreational routes and roads;
- Progress/compliance with mitigation measures and reporting;
- Notification of monitoring at relevant locations, including requests for permission to access third party land or property where there is a monitoring or sampling point; and
- Changes in working hours.

Once the Principal Contractor is appointed and the construction programme confirmed, the CEM will communicate this programme to the community and facilitate meetings as required.

The CEM will ensure that records of communication (including verbal communication) are kept, and that regular reporting is provided to NRW, PCC, the PCNPA and the local communities.

- **Ecological Clerk of Works (ECoW)** – reports to the CEM and is responsible for monitoring the implementation of the landscape and ecological mitigation measures on site prior to, during and post-construction. The ECoW will be, or will be supported by, a Suitability Qualified Ecologist (SQE).
- **Archaeological Clerk of Works (AcoW)** – employed to oversee the archaeological programme of works and will be responsible for the successful implementation of the Archaeological Management Plan (AMP).
- **All construction staff** – responsible for understanding the requirements of the CEMP and the environmental sensitivities of the PD. All staff have an obligation to abide by the CEMP and the relevant environmental legislation.

### 3.4 Subcontractor Management

The project will engage various subcontractors to carry out project construction related activities. These subcontractors are responsible for performing all work in conformance with relevant environmental legislation, the requirements of the CEMP, and contractual environmental requirements.

Subcontractors are required to develop suitable, adequate and effective method statements that explicitly define the measures to be taken to manage significant environmental risks associated with their scope of works. No works will be permitted to commence until such method statements have been developed and approved by the CEM. Additionally, subcontractors are required to provide sufficient and competent resources to monitor conformance with their own defined method statements.



The Principal Contractor will conduct monthly Environmental Reviews (ERs) that will assess the environmental performance of subcontractors.

## 4. Program of Works

The current indicative construction programme for the development outlines the key construction activities and when these activities are planned to take place and not the actual time on-site (see Graphic 4.1). This construction programme indicates a final installation and a full generation date in 2026.

Tasks Milestones	2021	2022				2023				2024				2025				2026				2027 -> 2052
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Submission of the ES																						
FEED																						
Detailed Design																						
Fabrication																						
Construction (onshore and Offshore)																						
Final commissioning of WTG Units																						
Start-Up of Erebus																						
Operation of Erebus																						

**Graphic 4.1- Indicative development and installation programme for the Project**

## 5. Safety

Site specific risk assessments and method statements will be undertaken in accordance with the applicable legislation prior to the commencement of construction activities; to identify any potential risks, assess their likelihood and significance, and to identify mitigation measures to be implemented to ensure the safety of workers and the general public.

Site security during the construction phase will be strict. Access to the site will be prevented by the use of temporary fencing to prevent unauthorised access. Compounds for the temporary storage of equipment or materials will be provided. These will be locked with restricted access. Security staff will be utilised as appropriate.

The Applicant will ensure that adequate arrangements are in place for the discharge of all duties under the Construction (Design and Management) Regulations 2015 (CDM).

A Health and Safety Plan (HASP) will be prepared by the Principal Contractor which will set out how all health and safety matters on site are to be managed and how risks are to be identified and managed in accordance with current good practice and legal requirements.



## 6. Security

A Permit to Work system (or equivalent) will be introduced during construction to ensure that only authorised construction personnel are allowed within the construction area and that an accurate record of site-based personnel is available in case of emergency.

The Principal Contractor will ensure that the construction sites are secure. Access to the PD will be limited to specified entry points only and all personnel entrances and exits will be recorded and monitored for both security and health and safety purposes.

Visitors to the PD site during construction will be required to report to the construction reception office (location to be confirmed) and will only be permitted to access the construction area under escort by appropriately authorised staff or following successful completion of specific safety induction training.

All working areas will be appropriately fenced off from members of the public and to prevent animals from straying onto working areas.

## 7. Construction Operations

### 7.1 Site Access

It is proposed to access the substation from the unclassified access to Lambeeth Farm, with the onshore export cable linking this with Pembroke Power Station to the north and the landfall at West Angle Bay to the west. The onshore export cable will be installed from separate sites accessed from the local highway network. These accesses will be agreed with PCC and PCNPA and will be detailed in the final Construction Traffic Management Plan (CTMP).

### 7.2 Construction and Delivery Hours

To minimise the potential impacts on residents, the core construction working hours will be limited to weekday daytimes and Saturday mornings, as defined in BS5228, the Code of Practice for Noise and Vibration Control on Construction and Open Sites (British Standards Institution, 2014). Working hours will be agreed with the PCC and PCNPA prior to construction, but are expected to be:

- 07:00 – 19:00 hours on weekdays;
- 07:00 – 13:00 hours on Saturdays; and
- No working on Sundays, Bank or Public Holidays.

Should any work need to be undertaken outside of the agreed hours, the Principal Contractor/CEM will engage with PCC and PCNPA to apply for dispensation under Section 61 of the Control of Pollution Act 1974.

The majority of deliveries will be programmed to arrive during normal working hours only. Night-time deliveries will be minimal and will only be undertaken with special consideration. Care will be taken to minimise noise when unloading vehicles, and construction traffic will be prohibited from un-necessary idling within the site boundary or at the site access points.

Works will be phased to minimise effects on the surrounding environment and local communities by:



- Avoiding any weekend events using recreational routes (and their diversions where relevant);
- Scheduling construction activities to minimise the area and period of time that soil will be exposed, particularly during wetter periods;
- Timing soil handling and overburden stripping to suit weather conditions;
- Timing noise, vibration and dust producing activities to avoid key sensitive times most disturbing to the local residential and commercial properties; and
- Scheduling works to minimise disruption to pastoral farming activities.

### 7.3 Construction Site Housekeeping

Good construction site housekeeping practice will be applied at all times. As far as reasonably practicable, the layout of the site will be designed using the following principles:

- All work areas will be secured;
- Any fuels or liquid materials will be stored and banded in compliance with the relevant regulations;
- Signage and boundary fences, where required, will be regularly inspected, repaired and replaced as necessary;
- All working areas will be kept in a clean and tidy condition;
- Wheel washing and dust suppression facilities will be provided when and where required;
- All practicable measures will be taken to minimise the risk of fire and the Contractor will comply with the requirements of the local fire authority;
- Waste will be removed at frequent intervals;
- Construction waste susceptible to spreading by wind or liable to cause litter will be stored in secure containers;
- The Principal Contractor shall take all necessary and practicable precautions to prevent the occurrence of smoke emissions or fumes from site plant or stored fuel oils for safety reasons and to prevent, as far as is reasonably practicable, such emissions or fumes drifting into residential areas, nearby workplaces or areas of public open space. In particular:
  - Plant shall be well maintained, regularly serviced and measures taken to ensure that engines are not left running for long periods when not directly in use;
  - Plant which emits visible emissions after warm-up shall be taken out of service and either repaired or replaced; and
  - Vehicle exhausts will be directed away from the ground and other surfaces and preferably upwards to avoid road dust being re-suspended to the air and should be positioned at a sufficient height to ensure adequate local dispersal of emissions.
- The Principal Contractor will ensure that all construction vehicles will conform to at least Euro 4 emissions standards;
- Open fires will not be permitted on site.



## 7.4 Pre-construction Enabling Works

It is anticipated that the following enabling works will be undertaken:

- Environmental and Ecological pre-construction surveys;
- Establishment of temporary works surfaces;
- Construction of haul roads;
- Site levelling (where required);
- Establishment of temporary construction compounds; and
- Installation of temporary security and safety lighting.

## 7.5 Construction Compound

Temporary site infrastructure is expected to consist of, but not be limited to, boundary fencing, security lighting, temporary construction site facilities (welfare cabins, stores, skips, etc.), and storage for Control Of Substances Hazardous to Health (COSHH) substances. Power for the temporary facilities during the construction phase will comprise temporary connection to the local grid and mobile diesel generator. The type and exact location will be selected by the Principal Contractor and confirmed in a later revision to this document.

The Construction Compound will meet standard good management practices which include but are not limited to:

- Compound design and layout will align with standards for distances from watercourses (at least 10 metres);
- Adequate parking will be provided to ensure that the safety and efficient operation of the public highway is not reduced;
- Welfare facilities will be provided to minimise the need for offsite trips by staff during the working day;
- Compound design and layout will ensure that dust emission sources are located away from sensitive receptors; and
- If compound lighting is required, it will be designed to minimise light pollution to the surrounding area.

## 7.6 Welfare Facilities

Workers' Safety Information Sheets and COSHH safety data sheets will be kept on site.

Where portable generators are used, industry good practice will be followed to minimise noise and pollution from such generators.

Prior to construction, the Principal Contractor will prepare the arrangements for welfare provision and will be responsible for the maintenance of the facilities throughout the construction of the PD. Facilities will include:

- Toilets;
- Washing facilities;
- Changing rooms, drying rooms and lockers; and
- Canteen and kitchen facilities.



All foul waste will be disposed of by an appropriate contractor to a suitably licenced facility. It is expected that a suitably sized storage tank will be provided and will be periodically pumped out by a specialist contractor so that the water could be disposed of at a suitably licenced waste facility.

The risk of infestation by pests or vermin will be minimised by the appropriate collection, storage and regular collection of waste, the prompt treatment of any pest infestation and effective preventative pest control measures.

## 7.7 Artificial Lighting

At night and during periods of darkness, directional security lighting will be used. Lighting will be selected and sited so as to minimise visual intrusion to local communities and environmental receptors, whilst maintaining the safe and efficient operation of the PD.

The Principal Contractor will comply with the requirements of the Environmental Protection Act (UK Government, 1990). As well as implementing relevant measures set out in the Guidance Notes for the Reduction of Obtrusive Light GN01:2011 (Institute of Lighting Professions, 2011). Measures to reduce the impacts of artificial lighting include:

- Unnecessary lighting will be avoided and, following completion of the task, lighting will be switched off and/or removed. All lighting will be switched off during daylight hours;
- All lighting will be designed to avoid visual intrusion and/or light spillage. Lighting will be positioned and directed to avoid nuisance to residents and wildlife and/or causing distractions to drivers on adjacent roads. Lighting will also avoid spillage onto neighbouring habitats; and
- Where mobile lighting relies on portable diesel generators for power, the containment of the diesel will be monitored to check for leaks and spills. Spill kits will be made available, and staff provided with appropriate training on their use.

## 7.8 Storage of Plant and Materials

Fuel, equipment and construction materials will be stored appropriately so as to minimise the risk of pollution. The following measures will be implemented to prevent spillage of hazardous materials:

- Development of a Spill Response Plan and provision and maintenance of spill response equipment;
- Storage of hazardous materials no less than 20 m away from a watercourse/drainage gully;
- Completion of a COSHH assessment for hazardous materials;
- Development of a COSHH Register documenting materials stored and handling requirements;
- Segregation of COSHH raw material stores and COSHH waste stores;
- Storage of hazardous material containers on secondary containment systems that will contain 110% of the contents of the largest container or 25% of the total, whichever is greater;
- Protection of hazardous materials in locked containers to minimise the ingress of rainwater and secure them against accidental damage;
- Staff training in the use of spill kits and the correct disposal of used material;





- Maintenance of a log of any incidents; and
- Inspection of all construction plant and machinery on a daily basis to check for fuel and oil leaks and, where necessary, drip trays or plant nappies will be used to collect leaks.

## 7.9 Wheel Washing

The Principal Contractor will implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable) to reduce debris on the public road network. The Principal Contractor will ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.

## 7.10 Parking

Parking for construction workers, deliveries and site visitors will be accommodated within the PD site and will not impact on the public road network.

## 7.11 Site Demobilisation

After the main construction activities have been finalised, permanent fencing will be installed, and temporary infrastructure will be removed.

# 8. Communication

## 8.1 Internal Meetings and Communication

Weekly internal construction meetings shall be held during the construction phase. These meetings shall include Environmental matters and shall be attended by the CEM/ECOW. Any issues resulting from daily or weekly audits shall be discussed with appropriate corrective actions agreed. A 'weekly look ahead' shall be provided at the construction meeting where any environmental constraints or special requirements can be discussed and agreed in advance.

The CEM will attend any critical path or construction activities which have the potential to affect the local community and need to be communicated.

Environmental performance meetings will be arranged as necessary. These meetings will be attended as appropriate by the CEM/ECOW and representatives of the workforce. Notes of the meetings will be distributed.

Site Environmental Notice Boards will display the Environmental Policy of the Applicant and the Principal Contractor, Emergency Contacts List, relevant statutory and non-statutory advice and guidance; and any other relevant information. These Environmental Notice Boards will be situated in prominent positions in the main reception area of the PD construction office.

## 8.2 External Meetings

The CEM will arrange and attend meetings with relevant statutory bodies as necessary together with the ECoW.



## 8.3 Community Liaison

At the earliest possible stage, the Applicant will actively engage with local residents to discuss the programme of work, learn of any concerns they may have, and determine how the Principal Contractor can minimise the impacts of construction on local residents.

The CEM will be the first point of contact for any queries and/or grievances regarding the construction of the PD and will be responsible for:

- Recording all queries and/or issues raised;
- Responding in an appropriate and timely manner,
- Liaising with the planning authorities in connection to any complaints; and
- Monitoring any actions that need to be implemented.

# 9. Environmental Training

## 9.1 Inductions

All project personnel and sub-contractors will receive an Environmental Induction. No personnel, including sub-contractors, will be permitted to undertake any work on site without undertaking a site induction. The site induction will evolve to reflect changes in the CEMP as the project develops. Environmental topics covered in the induction shall include, but will not be limited to:

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

## 9.2 Toolbox Talks

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

TBTs will be provided routinely, but also when:

- There is a change to existing legislation, which requires an operational change;



- Site inspections or audits have identified corrective actions which require rolling out;
- Work is being undertaken in particularly sensitive areas; and
- When there are significant changes in environmental conditions, e.g. heavy rainfall.

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

### 9.3 Specialist Training

Specialist training for specific members of the construction crews will be provided as required. This may include, but will not be limited to:

- Environmental Incident;
- Water management;
- Waste Representatives;
- Working near and in water; and
- Fuel Tanker Drivers and Refuellers.

## 10. Incident Response

### 10.1 Environmental Incidents and Corrective Actions

All environmental incidents and near misses shall be reported and investigated by the CEM, reporting to the Applicant and Principal Contractor. Incidents will be recorded and those that, in the judgement of the CEM/ECOW, are deemed significant, will be reported to the Applicant/Principal Contractor as soon as possible. Where relevant, the appropriate authorities shall be informed immediately. Copies of incident investigation reports shall be supplied by the CEM to the Principal Contractor and the Applicant and action taken to prevent recurrence.

All corrective action, incident and near miss report forms shall be held in a register maintained at the construction site office base.

Any incident that may result in an environmental impact, will be reported immediately to NRW, the PCC and the PCNPA together with details of date, time, location, type, potential impact and person calling.

### 10.2 Complaints Procedure

The Principal Contractor will provide details (postal details and email address) to which all written complaints should be addressed. All complaints will be addressed by the CEM.

The Applicant will ensure that a system is introduced for the logging and recording of any complaints that will be collated and a copy made available to the Principal Contractor, CEM and the relevant department of the PCC and the PCNPA. Any complaints received will be acknowledged within 24 hours during all hours when works, including deliveries, are taking place. The CEM shall ensure that all complaints receive a written response, to include details of any action undertaken if such action is deemed appropriate. The CEM shall provide the Applicant with a monthly report that details all complaints, and the actions taken.



# 11. Environmental Monitoring

Environmental monitoring will be undertaken during construction works to check compliance with set conditions and applicable environmental legislation.

The CEM/ECoW and Principal Contractor will review all operations to ensure compliance with the CEMP. Should deficiencies or opportunities for improvement be identified, the CEM and the Principal Contractor will agree the actions required and the timescale for implementation.

## 11.1 Inspections and Audits

The CEM will undertake a programme of weekly environmental inspections and monthly environmental audits to record performance and identify any corrective actions required.

Provision will be made to carry out appropriate environmental inspections and monitoring of the Principal Contractor's environmental performance in the form of monthly audits. Formal audits will be against an audit checklist which will provide a mechanism to monitor and assess legislative standards, licence conditions and any other provisions agreed with statutory undertakers.

Where problems are identified, corrective actions will be identified by the CEM and Principal Contractor and will be implemented by the Principal Contractor within a defined time frame.

The CEM/ECoW will inform the Principal Contractor and Applicant of any work that they feel should be stopped in order to avoid an unacceptable impact on the environment, in particular a breach of environmental legislation.

## 11.2 Specific Environmental Monitoring

Monitoring of specific environmental parameters will be carried out as necessary and requirements for environmental monitoring will be reviewed as further consents and licences are received and consultations completed.

Table 3 presents the key parameters that may require environmental monitoring and where further details will be provided post consent and on appointment of a Principal Contractor.



**Table 3 Key Parameters that require Monitoring**

Environmental Monitoring	Phase	Purpose	Frequency	Responsibility	Where Further Details will be Provided
Daily Site Inspections	Pre-construction and Construction	Inspection and maintenance of routine activities including the appropriate storage of materials, litter picks and general housekeeping to ensure environmental considerations are appropriately managed.	Daily	Principal Contractor	CEMP
Waste Monitoring	Pre-construction and Construction	Waste generated within the construction areas shall be monitored as part of its classification to ensure the appropriate treatment, handling, management and disposal measures are applied.	Daily	Principal Contractor	Site Waste Management Plan
Water Quality Monitoring Programme	Pre-construction and Construction	To ensure that mitigation measures are operating as planned and preventing pollution and in the case of a pollution event, facilitate quick identification and implementation of appropriate action in line with the Emergency Response Plan.	A combination of daily observations and monitoring and regular water quality sampling on a periodic basis or ad hoc depending on circumstances. The exact programme is to be determined by the Principal Contractor in consultation with NRW and other relevant stakeholders.	Principal Contractor	Water Quality and Pollution Management Plan



Traffic Monitoring	Pre-construction and Construction	To ensure the CTMP is being followed and to enable refinements or alterations to be made as appropriate	Regular – to be defined by the Principal Contractor in consultation with relevant authorities.	Principal Contractor	Construction Traffic Management Plan
Noise Monitoring	Pre-construction and Construction	To ensure that mitigation measures are appropriate and being applied rigorously and to provide early warning of increased noise emissions to inform the cessation or modification of activities prior to impacts occurring.	Adequate and appropriate measures to be determined by the Principal Contractor in consultation with PCC and PCNPA. Likely to entail daily visual inspections and weekly recording.	Principal Contractor	Construction Noise Management Plan
Dust Monitoring	Pre-construction and Construction	To ensure that mitigation measures are appropriate and being applied rigorously and to provide early warning of increased dust emissions to inform the cessation or modification of activities prior to impacts occurring.	Adequate and appropriate measures to be determined by the Principal Contractor in consultation with PCC and PCNPA. Likely to entail daily visual inspections and weekly recording.	Principal Contractor	Construction Dust and Air Quality Management Plan
Protected Species Monitoring	Pre-construction and Construction	Any confirmed protected species presence will be monitored by an ECoW to mitigate the likelihood and extent of disturbance.	Monitoring will be implemented as and when required based on good practice guidance relevant to the species confirmed.	Principal Contractor/ECoW	Biodiversity Management Plan  (Habitats Management Plan or specific licensing requirements)



Ornithological Monitoring	Construction	This will involve observations of birds on site during operations to ensure no signs of disturbance.	Regularly	ECoW	Biodiversity Management Plan (Breeding Birds Protection Plan)
Terrestrial invasive non-native species (INNS) Monitoring	Pre-construction and Construction	To ensure that INNS are not being spread or introduced as a result of construction activities.	Regularly	ECoW	Biodiversity Management Plan
Archaeological Monitoring	Pre-construction and Construction	To ensure that impacts to archaeological assets are prevented and minimised.	Daily during the pre-construction archaeological programme of works and regularly during the construction period.	ACoW	Archaeology Management Plan



# 12. Environmental Management Plans

Onshore environmental specific mitigation measures are provided in the ES within Chapters 19 - 28. The schedule covers all phases of the PD as outlined in the ES. The Applicant and the Principal Contractor will adhere to these mitigation measures during construction of the PD.

The following sections provide further information on the topic specific Management Plans.

## 12.1 Outline Pollution Prevention Management Plan

### 12.1.1 Introduction

This section provides an overview of what will be included within the Pollution Prevention Management Plan (PPMP). Measures relating specifically to water pollution from particulates and sediments in run-off are addressed within the Outline Water Quality and Pollution Management Plan.

The environmental control measures defined within the PPMP apply to all personnel and all activities and operations associated with the PD.

### 12.1.2 Plant and Machinery

All plant and machinery shall be regularly maintained to ensure good working order. Checks for leaks of fuel and lubricants will be conducted before works with plant and machinery is allowed to commence and maintenance and servicing records will be reviewed and updated as required.

A suitable quantity of pollution control equipment, e.g. spill kits containing absorbent pads, absorbent granules, absorbent booms etc. will be kept on site in the event of an emergency. The CEM will check pollution control equipment on a weekly basis to ensure that it is adequately maintained (for example ensuring equipment is within date) within the construction areas, "Emergency Grab Packs" or spill kits to be carried in site vehicles and mobile plant and larger kits with fuel bowsers and emergency vehicles.

Static plant such as pumps and generators will be self-bunded or placed on drip trays wherever practicable to prevent leaking materials, from contaminating the ground or surface waters.

Mobile plant to be in good working order, kept clean and fitted with plant 'nappies' at all times.

No washing out of concrete and cement delivery vehicles will take place on-site without suitable provision for the washing out water and provision of a suitable location that is lined with a geotextile to prevent infiltration to ground. Such washing will not be allowed to flow into any drain. Wash water will be adequately contained, prevented from entering any drain, and removed from the PD site for appropriate disposal at a suitably licenced waste facility.

The Site is to be secure to prevent any vandalism that could lead to a pollution incident. Further details of arrangements for dealing with spills, leaks and unplanned emissions, unplanned damage to the environment and other environmental incidents will be provided.





### 12.1.3 Storage and Handling

#### *Fuel and Lubricants*

All fuels shall be stored in integral bunded fuel bowzers, designed to hold at least 110% of the contents of the tank. All connections shall be situated within the bund. Fuel shall be stored at least 20 m away from any watercourse, where reasonably practicable. Refuelling within the construction areas shall be undertaken at least 20 m from any watercourses.

Oils and lubricants used within the construction areas will also be stored in temporary impermeable bunded areas or sealed bunded tanks designed to hold 110% of the container volumes. No oil or fuel shall be stored within 20 m of a watercourse.

Construction waste/debris are to be prevented from entering any surface water drainage or water body.

#### *Herbicides*

Only trained sub-contractors shall apply herbicides, and only where their use is essential. Certificates of competence shall be inspected before application is allowed and a record of application made in accordance with the Control of Pesticides Regulations 1986.

#### *Control of Substances Hazardous to Health*

All COSHH materials will be stored and handled in accordance with the COSHH Regulations 2002 (UK government, 2002). A secure COSHH store will be set up within the construction site compound. COSHH assessments and Material Safety Data Sheets shall be held with the COSHH materials. A COSHH register shall be created and maintained on-site.

All site personnel and subcontractors will be made aware of the COSHH requirements through site inductions and specific toolbox talks. Daily site inspections will be used to review and monitor the storage and issue of materials.

### 12.1.4 Pollution Incident Response

As part of the PPMP, the Principal Contractor will incorporate incident response measures. These measures are likely to include:

- A suitably trained emergency environmental crew will be provided by the Principal Contractor to deal with pollution incidents in conjunction with other safety-related incidents as required; and
- An emergency contact list and spill response flowchart shall be displayed on notice boards and on fuel bowzers.



## 12.2 Outline Construction Noise Management Plan

### 12.2.1 Introduction

This section provides an overview of what will be included within the Construction Noise Management Plan.

The noise impact levels resulting from the construction of the PD must be compliant with the threshold limits defined in the Environmental Impact Assessment. The following threshold noise levels have been set using the 'ABC method' provided in BS 5228 (British Standards Institution, 2014):

- Weekday daytimes (weekdays 07:00 – 19:00 and Saturdays 07:00 – 13:00) – 65 dB;
- Evenings and weekends (weekdays 19:00 – 23:00, Saturdays 13:00 – 23:00 and Sundays 07:00 – 23:00) – 55 dB; and
- Night-time (23:00 – 07:00) – 45 dB

### 12.2.2 Noise Management

In addition to the specific mitigation measures detailed within the ES volume 1, chapter 22 Onshore Noise and Vibration, the following standard mitigation measures will be implemented by the Principal Contractor to minimise noise impacts:

- All construction activity will be undertaken in accordance with good practice as described by BS 5228-1: 2009;
- All construction staff must show consideration to the sensitive receptors, including residential neighbours, and must not generate unnecessary noise when walking to and from the construction sites, or when leaving and arriving at work;
- SMART reversing alarms will be used;
- All personnel involved in the works will receive training and advice on noise minimisation and general good site practice through site-specific training and briefings;
- All materials (including waste materials) shall be handled, stored and used in a manner that minimises noise. This will include ensuring the efficient handling of materials to avoid unnecessary double handling and to ensure drop heights are minimised. Wherever practicable, materials will be lowered and not dropped from height;
- Plant and equipment:
  - Plant will be certified to meet relevant legislation and should be no noisier than would be expected based on the noise levels as stated in BS 5228-1: 2009 Noise and Vibration Control on Construction and Open Sites;
  - Noisy plant or equipment will be situated as far as possible from site boundaries and will be fitted with exhaust silencers, maintained in good and efficient working order and operated in such a manner as to minimise noise emissions. Plant will comply with the relevant statutory requirements;
  - Semi-static equipment is to be sited and oriented as far as is reasonably practicable away from noise sensitive receptors and will have localised screening if deemed necessary;
  - All plant will be regularly serviced, maintained and operated in accordance with manufacturers' instructions;



- Machines that are intermittently used will be shut down in the intervening periods between work or throttled down to a minimum;
  - Engine compartments will be closed when equipment is in use;
  - Site inductions will highlight the need for vehicle horns and alerts to only be used when absolutely necessary;
  - The Principal Contractor will comply with the requirements of the Control of Pollution Act 1974 (with particular reference to Part III), the Environmental Protection Act 1990, the Health and Safety at Work Act 1974 and the Control of Noise at Work Regulations 2005;
  - All trade contractors will be made familiar with current noise legislation and the guidance contained in BS 5228-1: 2009 (Parts 1 and 2) which will form a prerequisite of their appointment;
  - Deviation from approved method statements will be permitted only with prior approval from the Principal Contractor and other relevant parties. This will be facilitated by formal review before any deviation is undertaken; and
  - A contact number which the public may use shall be displayed prominently on a board at the Cable Route Site.
- Traffic and deliveries:
- Vehicles shall not wait or idle on the public highway, with their engines running;
  - Routing of Heavy Goods Vehicles (HGV) will be agreed with the Local Authorities;
  - Deliveries shall be programmed to arrive during normal working hours, wherever practicable.
- Monitoring, inspections and reporting:
- The site log/ Daily Progress Report maintained by the Principal Contractors will include record of daily activities, mitigation measures, complaints, weather conditions etc.;
  - Areas at risk from excessive noise activities will be inspected daily by the Principal Contractor;
  - All complaints will be recorded and investigated, and any corrective actions implemented. Additionally, should any complaints arise regarding vibration they will be investigated, and monitoring measurements taken and analysed, with techniques modified where required; and
  - A contact number will be established to provide the opportunity for the local community to raise their concerns if issues with site activities, such as noisy conditions, are causing a nuisance. This contact number will be displayed on the board on the fence of the Cable Route Site prior to commencing works.



## 12.3 Outline Construction Dust and Air Quality Management Plan

### 12.3.1 Introduction

This section provides an overview of what will be included within the Construction Dust and Air Quality Management Plan.

The Construction Dust and Air Quality Management Plan aims to ensure that the construction of the Development is carried out such that emissions of dust and other pollutants, including odour, are limited.

The key activities that will generate air pollution are the use of mechanical plant and vehicles, and earthworks. Plant equipment and vehicles will generate exhaust emissions which may impact local air quality (CO<sub>2</sub>, CO, PM<sub>10</sub>, PM<sub>25</sub>, NO<sub>x</sub>, SO<sub>x</sub> etc.). Dust will be generated through earthworks, such as ground-breaking, top-soil removal and storage.

Construction dust is not typically associated with human health effects as most dust particles are too big to be inhaled, but can cause eye, nose and throat irritation and lead to annoyance if deposited on cars, windows and other property. Under Part III, Section 79 (Statutory nuisance and inspections therefor) of the Environmental Protection Act 1995, dust can be a statutory nuisance. However, there are no statutory standards for dust deposition which can be used to assess whether a nuisance has occurred, principally due to the normal variability of atmospheric dust, and the wide range of monitoring methods that seek to characterise the dust. Standards are therefore commonly adopted on a “custom and practice” basis (i.e., relevant to specific monitoring methods).

### 12.3.2 Dust and Air Quality Management

The Institute of Air Quality Management (IAQM) (2014) guidance standard measures for mitigating the impacts of dust during construction and demolition will be followed.

The following mitigation measures will be implemented by the Principal Contractor to minimise dust and air quality impacts:

- Avoid the use of diesel or petrol generators, use mains electricity or battery powered equipment where practicable;
- Use a system of on-site vehicle routes with turning areas and loading areas using suitable speed limits and signage;
- Sheeting of potential dust-generating materials being transported on lorries/vans to and within the Cable Route Site;
- Conduct all cutting and grinding operations in a manner to reduce the risk of dust migration (e.g., wet cutting techniques);
- Adopt dust suppression techniques (e.g., water suppression, damping down access tracks and spraying down stockpiles during dry weather);
- Regularly monitor both on- and off-site to ensure minimal dust and odour impacts upon local neighbours and wildlife;
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as possible;
- Erect solid screens or barriers around dusty activities that are at least as high as any stockpiles on-site;



- Fully enclose specific operations where there is a high potential for dust production and the Cable Route Site is active for an extensive period;
- Keep site fencing, barriers and scaffolding clean using wet methods;
- Remove materials that have a potential to produce dust as soon as possible, unless being re-used on-site;
- Cover, seed or fence stockpiles to prevent wind whipping;
- Ensure an adequate water supply on the Cable Route Site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate;
- Use enclosed chutes and conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate;
- Ensure equipment is readily available on-site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event, using wet cleaning methods;
- Avoid scabbling (roughening of concrete surfaces) if possible;
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate control measures are in place;
- Wind conditions shall be monitored throughout construction of the Development, and backfill material shall be dampened down when dust that could affect the public, road users or surrounding habitat is likely;
- The Principal Contractor will provide road cleaning equipment (e.g., road sweepers) to remove dirt, mud or dust dropped or accumulating on roads to ensure public highways remain unaffected; and
- Damping down access tracks and spraying down stockpiles during dry weather to reduce dust.

#### Monitoring and communications:

- Display the name and contact details of person(s) accountable for air quality and dust issues at the Cable Route Site. This will be the Principal Contractor;
- Dust monitoring will be carried out by the CEM/ECOW on a weekly basis via visual checks to ensure minimal dust and odour impacts upon local neighbours and wildlife. These checks will be carried out and compared with previous recordings to provide a record of site conditions. These will be held as reference to any complaint;
- Carry out daily visual inspections to monitor compliance, record inspection results, and make an inspection log available when requested. Record all inspections of haul routes and any subsequent action in a log book;
- Increase the frequency of Cable Route Site inspections by the person accountable for air quality and dust issues on-site when specific activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;
- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken;
- Make the complaints log available when requested;



- Record any exceptional incidents that cause dust and/or air emissions, either on or off-site, and the action taken to resolve the situation in the logbook; and
- Wind conditions shall be monitored throughout the works and backfill material shall be dampened down when dust that could affect the public, road users or surrounding habitat is likely.



## 12.4 Outline Site Waste Management Plan

### 12.4.1 Introduction

This section provides an overview of what will be included within the Site Waste Management Plan (SWMP).

The Site Waste Management Plan Regulations (2008) were repealed on the 1st of December 2013 by The Environmental Noise, Site Waste Management Plans and Spreadable Fats etc. (Revocations and Amendments) Regulations 2013.

The SWMP Regulations (2008) aim was to make the construction industry more sustainable by ensuring that those responsible for development projects are aware of the waste being produced so that it can be reduced. Although no longer required by legislation, it is recognised that a SWMP or Construction Waste Management Plan (CWMP) would support the identification of actions to minimise construction waste from the redevelopment of the site being sent to landfills.

Prior to commencement of the works, a SWMP will be prepared by the Principal Contractor. Generally, the disposal of all waste or other materials removed from the site will be in accordance with the SWMP Regulations 2008 and requirements of the EA, COPA 1974, Environment Act 1995, Special Waste Regulations 1996, the Duty of Care Regulations 1991; and Environmental Permit requirements.

In general, and in accordance with the principles of the Government's "Waste Strategy 2000", and the SWMP Regulations 2008, a principal aim during construction will be to reduce the amount of waste generated and exported from site. This approach complies with the waste hierarchy whereby the intention is first to minimise, then to treat at source or compact and, finally, to dispose of off-site as necessary.

The generation of construction waste will, as the first priority, be avoided. Any packaging used for transporting of construction materials delivered to site will be sent back with the delivery vehicle whenever practicable. If waste is generated on-site, it will be sent for reuse and recovery in preference to disposal. Where practical, spoil, excavation materials and surplus construction materials or clean concrete arising from the works on site will be reused.

Waste produced during all activities on site will be subject to 'The Waste Duty of Care Practice' (November 2018) which sets out practical guidance on how to meet waste duty of care requirements. It is issued under Section 34(7) of the Environmental Protection Act 1990 (the EPA) in relation to the duty of care set out in Section 34(1) of that Act. It is the responsibility of the Developer to ensure that waste produced onsite is disposed of in accordance with legislation.

Waste for final disposal will be transported by Licensed Waste Carriers to local sites which operate in accordance with the appropriate Waste Management Licenses issued by NRW. Under the Duty of Care Regulations, the receiving site must be authorised to accept the type and quantity of waste generated. Transport of wastes will be minimised by the selection of local licensed sites where available. The only exception to this principle may be for the disposal of hazardous wastes (e.g. contaminated soil) where suitable landfill or other disposal sites may only be found further afield. No disposal of waste by open burning will be permitted on-site.

The Developer will audit waste carriers and disposal facilities and maintain documentary evidence that these requirements are being met. A register of waste carriers, disposal sites



(including transfer stations) and relevant licensing details will be produced and maintained on site.

All relevant contractors will be required to investigate opportunities to minimise and reduce waste generation, such as:

- Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;
- Implementation of a 'just in time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;
- Attention to material quantity requirements to avoid over-ordering and generation of waste materials;
- Segregation of waste at source where practical;
- Re-use of materials on-site wherever feasible. The Government has set broad targets of the use of reclaimed aggregate, and in keeping with current guidelines and relevant legislation, contractors will be required to maximise the proportion of materials recycled; and
- Re-use and recycling of materials off-site where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or reprocessing).

Materials and waste will be stored in appropriate conditions to prevent damage or contamination of storage areas. All hazardous materials including chemicals, cleaning agents, solvents and solvent containing products will be properly sealed in containers at the end of each day, prior to storage in appropriately protected and bunded storage areas. Containers should be sited away from drains or unsurfaced areas and should be regularly maintained and inspected for damage.

Waste will be sorted into different waste types such as timber, copper, metal, paints etc and either disposed of into larger skips, or if suitable, placed into a compactor to reduce the volume of the waste before it is taken off-site.

Any spoil from excavations must be stored on areas of hardstanding, short grassland or bare ground adjacent to the works. If anything needs to be stored on vegetation (long grassland or scrub) then the spoil must be wrapped to prevent animal ingress and the ECoW will be required to check the area first.

#### **12.4.2 Contaminated Waste**

The Riverside Country Park Local Wildlife Site (LWS) is sited over a historic landfill site which was used to dispose to putrescible materials until 1991. Waste stored in the landfill site includes household waste and unregulated industrial waste. This land is considered extremely contaminated and ground works in this area should be avoided. Works will not be undertaken within the historic landfill site, however given the proximity, there is potential for contaminated soils to be recorded. If contaminated soils are recorded or suspected during the works then works should cease and advice sought from the EM.

Any contaminated waste material produced in this area must be disposed of appropriately by an experienced company licenced to deal with contaminated waste.





## 12.5 Outline Water Quality and Pollution Management Plan

This section provides an overview of what will be included within the Water Quality and Pollution Management Plan.

Outlined below are recommendations for mitigation measures to be implemented during construction to control water quality impacts. These mitigation measures take due cognisance of the Water Resources Act 1991 (UK Government, 1991) and the Construction Industry Research and Information Association Report C532 (CIRIA, 2006).

Good practice measures set out in the relevant Pollution Prevention Guidance (PPGs) or Guidance for Pollution Prevention (GPPs) have been followed. A review plan for Pollution Prevention Guidance documents (PPGs) is currently underway by the Scottish Environment Protection Agency (SEPA), Natural Resources Wales (NRW), and the Northern Ireland Environment Agency (NIEA), replacing them with a new series of guidance: Guidance for Pollution Prevention (GPPs). GPPs provide environmental good practice guidance for the whole UK, and environmental regulatory guidance directly to Scotland, Northern Ireland and Wales.

The relevant guidance includes:

- GPP1: General guide to preventing pollution (October 2020);
- GPP2: Above ground oil storage tanks (January 2018);
- GPP5: Works and maintenance in or near water (February 2018);
- PPG6: Working at construction and demolition sites (2012);
- GPP 13 Vehicle washing and cleaning (April 2017); and
- GPP21: Pollution incidence response planning (June 2021).

The measures in the following will be put in place to prevent pollution to the water environment:

- any hazardous materials (such as fuels, oils and chemicals) will be stored in a secure area with suitable secondary containment (e.g. drip trays, bunds);
- refuelling of plant and machinery onsite would be carried out in a designated area with suitable measures for the containment of any spillage; plant nappies shall be placed around standing plant and diesel pumps to collect leaks;
- all construction staff will receive appropriate training of what to do in the event of a spillage;
- provision of spill kits on site for both chemical and oil/fuel used on site;
- machinery will be regularly maintained and checked to minimise the risk of spillage;
- restrictions will be placed on the use of machinery near water bodies;
- treatment of any runoff from construction areas with elevated suspended solids prior to discharge. Approval will be obtained from NRW or Local Flood Authority, where required, for any discharges to controlled waters. Treatment measures could include perimeter cut-off ditches, settlement lagoons, overland flow and/or settlement tanks;



- temporary surface water management systems will be installed early in the construction sequencing and carefully managed to prevent localised flooding or pollution of surface and groundwater from silt and other contaminants;
- wheel wash facilities will be provided for vehicles moving to and from the application site at all entry and exit points. Silty water from wheel washes will require appropriate disposal to prevent unacceptable levels of suspended solids entering any nearby surface water bodies. As noted above, any disposal of surface water generated on site during construction to controlled waters will require consent from NRW. Wheel washing facilities will be located as far from surface waters as possible;
- if dewatering is required on any part of the application site, pumped groundwater will be disposed of appropriately and any relevant consents obtained;
- the reseeded of cleared land will be undertaken as soon as practicable, to minimise exposed land and the entrainment of sediment by overland flow. This can be managed by ensuring construction plant/materials are stored on hardstanding surfaces where possible. Where this is unavoidable, the Contractor will ensure any compacted soil is loosened as soon as possible following completion of the works; and
- the Principal Contractor will manage and dispose of foul water and sewage effluents from site facilities, complying with Guidance for Pollution Prevention 4: Treatment and disposal of wastewater where there is no connection to the public foul sewer, the governmental guidance document on Groundwater Protection, other relevant guidance and the following measures, as appropriate:
  - containment by temporary foul drainage facilities and disposal off-site by licensed contractors;
  - by preference, connection to the local foul sewer system as agreed with the relevant authorities; or where a foul sewer is not present, appropriate treatment and discharge to a watercourse or soakaway with approval from the NRW, where required. If not permitted, provisions need to be adopted to remove the liquid from site for disposal, such as via tanker.

The following measures will be implemented during construction to minimise the risk of pollution to controlled waters and accord with the relevant Guidelines for Pollution Prevention (GPP) 2:

- any containers of contaminating substances on site will be leak-proof and kept in a safe and secure building or compound from which they cannot leak, spill or be open to vandalism. The containers will be protected by temporary impermeable bunds with a capacity of 110% of the maximum stored volume. Areas for transfer of contaminating substances will be similarly protected.
- all refuelling, oiling and greasing will take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses and away from drains as far as reasonably practicable. Vehicles will not be left unattended during refuelling.
- only construction equipment and vehicles free of oil/fuel leaks which could cause material contamination will be permitted on site. Drip trays/nappies will be placed below static mechanical plant.
- all wash down of vehicles and equipment will take place in designated areas and wash water will be prevented from passing untreated into watercourses and will comply with GPP 13.



- GPP 5 will be followed when carrying out works near water. As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses.
- appropriate measures to be taken to protect erodible earthwork surfaces.
- The hazards of silt pollution will be emphasised in the Site Induction; including examples of recent significant enforcement action.
- No water will ever be pumped directly into a watercourse without appropriate controls and consents; i.e. all water pumped into a watercourse must be treated first to settle or remove suspended solids.
- The minimum area of topsoil will be stripped at any one time.
- The spread will be 'lipped' or bunded as it crosses a watercourse to prevent direct run-off. Where necessary silt fencing will be installed.



## 12.6 Outline Biodiversity Management Plan

### 12.6.1 Introduction

This section provides an overview of what will be included within the Biodiversity Management Plan.

A number of ecological sensitivities have been identified in the ES volume 1, chapters 20.

Following consent of the Proposed Development ecological pre-construction surveys will specify the extent of licences, habitats and protected species management plans that might be required for the construction phase of the Project (i.e. Dormouse Management Plan).

### 12.6.2 Overarching Mitigation

To minimise potential for effects on protected species and habitats during construction of the PD, the following measures will be taken:

- Chemicals will be stored securely away from any watercourses (minimum 10 m) and from habitats known to be used by protected species;
- Excavations will be covered at the end of each working day, or alternatively will include a means of escape for mammals which may become trapped (e.g., a ramp at a 45° angle);
- Any temporarily exposed open pipe system/conduits will be capped to prevent mammals from gaining access; All cable ducts will be capped pending cable pull and will be sealed once cable installed.
- Good housekeeping practices (e.g., litter) must be adhered to on-site at all times;
- In keeping with best working practices during construction, speed limits on-site will be restricted to 15 mph to reduce the risk of collisions of site traffic with protected mammal species;
- Any repeat surveys should be undertaken no more than 18 months following the completion of the baseline surveys documented in the ES Volume 3 Technical Appendix 20.4 Protected Species Survey Report. Otherwise, it is recommended that an update survey is undertaken, as per the methods section of the Protected Species Survey Report, to ensure there has been no significant change to the baseline;
- Should any sightings or signs of protected species not previously recorded on-site be made then all works within 50 m will cease immediately and the Principal Contractor's CEM/ECOW will be contacted for advice;
- The CEM/ECOW will regularly check known features such as protected species resting places for signs of activity, note any new features (e.g., badger setts or birds' nests), and provide mitigation advice accordingly;
- Relevant toolbox talks will be given by the CEM/ECOW on ecology matters, as and when required;
- All staff working on-site will be made aware of the locations and size of any exclusion zones. This information will be disseminated in the form of toolbox talks by the CEM/ECOW. During these talks the CEM/ECOW may expand upon the exact extent of restrictions, for example highlighting where access to areas is completely prohibited, or where it is not permitted to stop vehicles on routes passing through exclusion zones. All exclusion zones will be clearly marked by the Principal



Contractor where possible with the size of the exclusion zone dependent on the species sensitivity (CEM/ECOW will advise on this);

- Where night works are unavoidable, the need for artificial lighting will be kept to a minimum and directed away from sensitive receptors. The CEM/ECOW may make recommendations revising the times of working hours at specific locations or times of year as appropriate to avoid disturbance of sensitive receptors;
- Watercourse crossings will be designed according to best practice (CIRIA, 2010). The exact designs for culvert structures and other watercourse crossings will be the subject of consultation with NRW and other relevant consultees prior to construction, and will be designed to allow the through passage of fish, otters and other relevant species, while maintaining existing flow conditions and river bed conditions within each watercourse;
- All culverts will be fitted with mammal ledges to facilitate movement along ditches and through the culverts themselves;
- Stand-off buffers, temporary soakaways, appropriately discharged dewatering, soil stockpiles at appropriate locations, silt fencing and appropriate housekeeping measures to prevent pollution and siltation to water receptors; and
- Pre-construction verification check surveys will be undertaken for all protected species where potential significant effects or legal breaches could occur otherwise, considered to include (but not be limited to) otter, water vole, badger, red squirrel, pine marten and bats. Survey results and mitigation measures will be set out in Method Statements and be regularly reviewed throughout construction of the PD to ensure that they continue to be applicable and fit for purpose. Where the presence of legally protected species is confirmed, the works will be designed to minimise potential impacts on each species according to a specific Method Statements.

### 12.6.3 Protected Species and habitat Management

The Employer will require its contractors to avoid impacts upon statutory designated sites, and locally designated sites and other areas of notable habitat. The following measures to be followed to reduce risk of impact will include:

- Appropriate signage and segregation of construction vehicles from areas included within the boundaries of designated sites.
- Pre-construction surveys for legally protected species, including bats in trees and buildings, dormice, and otters, sufficient to inform any licence applications that may be required.
- If construction works resulting in the severing of hedgerows occurs during the summer months, it will be necessary to provide linear connection of hedges overnight to maintain bat flight lines. This should be installed at the height of the hedge canopy so that bats flying along the hedgerow do not need to deviate in either the horizontal or vertical plane. This can be achieved through mounting cut stems or branches from the cleared hedgerow in barrels which can be moved on to the alignment of the hedgerow at the end of the working day. No construction works are to be undertaken during the hours of darkness wherever possible. Where this cannot be avoided, task lighting should be the minimum intensity required for safety purposes and the extent of the lit area should be limited to avoid light spill on to areas of woodland, scrub, hedgerows and water bodies.
- Subject to a licence issued by NRW, clearance of woodland, scrub and hedgerows should be undertaken in a two-stage process to reduce the risks to dormice. The first stage would require vegetation to be reduced to 300mm above ground level



under the supervision of an appropriately qualified and competent ecologist during the winter months (November to March). The remaining vegetation can be removed or translocated following the first day of April or May (to be agreed with NRW) to avoid affecting hibernating dormice.

- Clearance of vegetation, including tall rank grassland and ephemeral vegetation should occur outside of the bird nesting season (mid-February to end of September). Where this is not possible vegetation should be searched by an appropriately qualified and competent ecologist prior to removal.
- During the construction works any excavations should either be covered over night or left with a means of escape for animals such as a sloping plank or ramp.
- To avoid the potential risks to both amphibians and reptiles it is recommended that vegetation (where present) within the construction area should be gradually reduced in height to encourage animals to move out of the area prior to any works commencing. Dense areas of habitat should be searched by an appropriately qualified and competent ecologist to assess the potential for reptile or amphibian hibernacula to be present and to allow the translocation of other species such as hedgehogs from the construction area.

The Applicant will require its contractors to obtain and comply with the requirements of any wildlife licences, including all protected species licences necessary for construction of the PD.

In addition to the measures described in other sections, management of construction activities to minimise ecological effects may include:

- provision of appropriate ecological watching briefs to be implemented during construction works;
- reinstatement of any areas of temporary habitat loss and any arrangements necessary for displaced species to maintain long term conservation status of those species concerned;
- restoration and replacement planting (e.g. trees, hedgerows, scrub, grassland etc) to reinstate any retained habitats adversely affected during construction. All sections of removed hedgerows should be reinstated either with semi-mature planting or translocated stools from the removed sections of hedgerow; and use of by-products of construction to enhance mitigation provision.
- Prior to and during construction, there will be consultation between the Employer/Contractor, Natural Resources Wales (NRW) and relevant wildlife organisations as appropriate.

#### **12.6.4 Invasive Non-Native Species**

Appropriate construction, handling, treatment and disposal procedures would be implemented in relation to The Invasive Alien Species (Enforcement & Permitting) Order (December 2019).



## 12.7 Outline Construction Traffic Management Plan

An Outline Construction Traffic Management Plan has been prepared with the ES and it is in Volume 3 Technical Appendix 25.2.

Prior to construction, a CTMP will be prepared to provide details of access junctions, routing plans, and safety measures identifies the traffic management measures required to support the Development. The measures which will be identified will relate to:

- Traffic Management;
- Access;
- Construction Traffic Movements;
- Road Signage; and
- Cable Crossings.

Generic measures will be discussed with the appropriate authorities and may include:

- the appointment of a Community Liaison Officer who would coordinate access to and from the site;
- measures to ensure the maintenance and condition of public roads, cycleways and public rights of way do not deteriorate due to the construction traffic, including monitoring arrangements with local highway authorities;
- measures to provide for road safety for the public and construction staff during traffic management works and temporary traffic control measures;
- procedures for driver training (e.g. to protect pedestrians and nonmotorised traffic) and appropriate use of technology to remove blind spots;
- procedures to be followed for the temporary or permanent closure or diversion of roads, public rights of way or accesses;
- permitted access routes and accesses for construction traffic;
- procedures to address any highway incidents or vehicle breakdowns relating to construction traffic, especially at peak times;
- monitoring requirements; and
- requirements relating to the movement of farm animals where farm accesses are affected.

Routes of construction traffic will be subject to approval of the planning and highway authorities.

Prior to the commencement of the works a Full CTMP will be produced in consultation with the highway authority and the emergency services. The Full CTMP will include, as appropriate:

- the site boundary and the main access/egress points for the worksite;
- temporary and permanent closures and diversions of highways and other public rights of way; and
- the proposed traffic management strategy. Measures to reduce traffic impacts.



## 12.8 Outline Archaeological Management Plan

This section provides an overview of what will be included within the Archaeological Management Plan.

Potential impacts on known or unknown buried archaeological remains which may survive within the Cable Route Site relate to the possibility of disturbing, removing or destroying in situ remains and artefacts during ground-breaking works (including excavation, construction and other works) associated with the construction of the PD.

The Cable Route Micro-siting Corridor avoids all designated heritage assets and has also been designed to avoid the majority of known non-designated heritage assets.

A Written Scheme of Investigation (WSI) will be agreed with the PCC and the PCNPA and the key requirements that are likely to be required are summarised within Table below.

**Table 4 Historic Environment Mitigation Schedule**

Location	Mitigation Measure
All Temporary Construction Compounds	Pre-construction archaeological evaluation (trial trenches) to be undertaken.
Haugh of Isla (refer to Cable Route Archaeological WSI for location detail)	Pre-construction archaeological evaluation (trial trenches) to be undertaken to determine extent of asset.
All other cable route working areas requiring topsoil stripping or excavation	Archaeological watching brief during construction as described in the Cable Route Archaeological WSI.





# Appendix 1 Relevant Legislation

Environmental Legislation	Summary of Relevance to the Site
<b>Hazardous Substances</b>	
Control of Substances Hazardous to Health (COSHH) Regulations 2002 (and amended 2003, 2004)	The COSHH regulations provide a legal framework for controlling people's exposure to all 'very toxic, toxic, harmful, corrosive or irritant' substances and apply to all places of work. There are various requirements including an assessment of the risk to the health of employees arising from their work and what precautions are needed, introduction of appropriate measures to prevent or control the risk (ensuring that measures of control do not increase the overall risk to health and safety), use of control measures and maintenance of equipment.
<b>Waste</b>	
Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991 (amended 1988)	This legislation provides powers to control fly-tipping and prevents the unlicensed transport of waste materials. All carriers of controlled waste including the producers of building and demolition waste are required to be registered with the Environment Agency. Controlled waste is defined as household, industrial, radioactive or commercial waste other than agricultural, mineral/ quarrying or explosive wastes. This registration must be renewed every 3 years.
The Environmental Permitting (England and Wales) (Amendment) Regulations 2018	The Regulations consolidate the Pollution Prevention and Control and waste Management Licencing regulations to provide a more streamlined approach to environmental regulations, by allowing for a number of different activities to be regulated under one permit by the Environment Agency.
Hazardous Waste (England and Wales) Regulations 2005 (amended 2009)	The Regulations ensure the sound management, storage and safe disposal of hazardous wastes, to prevent environmental pollution and harm to human health. 'Hazardous' waste applies to wastes which contain any substance which: <ul style="list-style-type: none"> <li>• is listed a hazardous waste in the List of Waste Regulations 2005 (see below);</li> <li>• is exceptionally classified as hazardous by the Secretary of State or any of the National Executives; or</li> <li>• is declared hazardous by virtue of any regulations under section 62 of the Environmental Protection Act (EPA) 1990.</li> </ul> All hazardous waste movements require pre-notification to the Environment Agency prior to any hazardous waste being produced (where possible). Producers are required to know and document the quantity, nature, origin and final destination of the Hazardous Waste and to certify that the waste carrier is registered under the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991. Copies of the completed consignment notes must be retained for at least 3 years by all those in the waste chain.
List of Waste (Wales) Regulations 2005 (amended 2005)	The List of Waste Regulations categorises wastes as hazardous and provides a coding system of waste and hazardous waste.



Environmental Legislation	Summary of Relevance to the Site
	<p>Wastes included in the list are subject to the provisions of Directive 75/442/ EEC.</p> <p>Under the List of Waste Regulations, a set of criteria are provided to determine whether or not a waste is classified as hazardous, e.g. if it has a flash point lower than 55°C.</p>
<p>Environmental Protection (Duty of Care) Regulations 1991 (amended 2003)</p>	<p>A legal duty of care is imposed on anyone – from producers, to carriers and disposers of waste, to ensure that:</p> <ul style="list-style-type: none"> <li>• Waste is not illegally disposed of or dealt with without a licence or in breach of a licence or in any way that causes pollution or harm;</li> <li>• Waste is transferred only to an ‘authorised person’, i.e. a local authority, registered carrier or a licensed disposer; and</li> <li>• When waste is transferred, it is accompanied by a full written description which forms part of a waste transfer note (or consignment note for hazardous wastes).</li> </ul> <p>All persons subject to duty of care are required to ensure that neither they nor any other person commit an offence under the Regulations.</p>
<p>Environmental Protection Act (EPA) 1990: Part 2 – Waste on Land (amended 2010)</p>	<p>This Act builds on the system put in place by the Control of Pollution Act with stricter licensing controls and other provisions aimed at ensuring waste handling, disposal and recovery operations do not harm the environment. It reorganised Local Authority responsibilities for waste management, introduced a duty of care for producers and handlers of waste and described the offences of unauthorised storage, treatment and disposal of waste.</p>
<p>Environmental Protection Act (EPA) 1990: Part 2a</p>	<p>The section of the EPA created by the Environment Act 1995 setting out the legislative framework for identifying and dealing with contaminated land.</p>
<p>Environment Act 1995</p>	<p>Inserted Part ‘2a’ to the EPA 1990 giving powers and responsibilities to Local Authorities regarding contaminated land.</p>
<p>The Environmental Noise, Site Waste Management Plans and Spreadable Fats etc. (Revocations and Amendments) Regulations 2013</p>	<p>These revoke the Environmental Noise (Identification of Noise Sources) (England) Regulations 2007 (SI 2007 No. 415), the Environmental Noise (Identification of Noise Sources) (England) (Amendment) Regulations 2007 (SI 2007 No. 2458) and the Site Waste Management Plans Regulations 2008 (SI 2008 No. 314)</p>
<p>The Waste Duty of Care Practice (November 2018)</p>	<p>Under Section 34 of the EPA, sets out practical guidance on how to meet waste duty of care requirements.</p>
<p><b>Discharge to Water/Land</b></p>	
<p>Anti-Pollution Works Regulations 1999</p>	<p>Aimed at ensuring that site owners pay for the prevention and remediation of pollution arising from their activities. Notices can be served by the Environment Agency directing a site owner to carry out anti-pollution works where any poisonous, noxious or polluting matter is likely to enter, or to be, or to have been present in any controlled waters.</p>
<p>Water Industry Act 1999</p>	<p>The Act prohibits certain discharges to sewers including: Any matter likely to injure the sewer or interfere with the free flow of its contents or to affect the treatment, disposal of its contents;</p>



Environmental Legislation	Summary of Relevance to the Site
	<p>Liquid waste or steam at a temperature higher than 110°F or any other chemical waste which is dangerous, a nuisance or prejudicial to health;</p> <ul style="list-style-type: none"> <li>• Any petroleum spirit; and</li> <li>• Calcium carbide.</li> </ul> <p>Trade effluents may be discharged into public sewers only with the consent, or by agreement with, the sewerage undertaker (i.e. local water company). The consent may stipulate conditions relating to:</p> <p>Nature or composition of the effluent;</p> <ul style="list-style-type: none"> <li>• Maximum daily volume allowed;</li> <li>• Maximum daily rate of flow; and</li> <li>• Sewer into which the effluent is discharged.</li> </ul>
<p>Water Resources Act 1991 (amended 2009)</p>	<p>The Act requires water abstractions to be licensed and certain discharges into controlled waters to be subject to Environment Agency consent.</p> <p>It is an offence under the Act 'to cause or knowingly permit':</p> <ul style="list-style-type: none"> <li>• Poisonous, noxious or polluting matter, or any solid waste matter, to enter controlled waters;</li> <li>• Matter, other than trade or sewage effluent, to be discharged from a sewer in contravention of a relevant prohibition;</li> <li>• Trade or sewage effluent to be discharged into controlled waters or through a pipe into the sea (beyond the controlled waters);</li> <li>• Unauthorised work in a water protection zone;</li> <li>• Trade or sewage effluent to be discharged onto land or into a lake or pond in contravention of a relevant prohibition; or</li> <li>• Any matter to enter inland waters so as to cause or aggravate pollution by impeding flow.</li> </ul> <p>Pollution from individual discharges into water is controlled by a system of discharge consents which set legal limits on the type, concentration and total volume of discharge which can be released. If a pollution incident occurs, a description of the nature and extent of harm must be produced.</p>
<p>Water Act 2003 and 2014</p>	<p>The Water Act replaces parts of the Water Resources Act 1991 and will be fully implemented by 2012. The Water Act introduces a new abstraction licence system which reduces the number of licences and encourages the development of Catchment Abstraction Management Strategies (CAMS).</p>
<p>Groundwater Regulations 1998 (amended 2009)</p>	<p>The Regulations transpose the requirements of the Groundwater Directive into UK legislation. The Regulations aim to prevent and limit the pollution of groundwater by certain listed substances or groups of substances. The listed substances are the same as those in the Groundwater Directive. The Regulations aim to prevent entry of List I substances into groundwater and prevent groundwater pollution by List II substances.</p> <p>The direct or indirect discharge of List I or II substances must be subject to prior investigation and authorisation. The Regulations also allow notices to be served to control activities which might</p>



Environmental Legislation	Summary of Relevance to the Site
	lead to an indirect discharge of List I substances or groundwater pollution by an indirect discharge of substances in List II.
Control of Pollution (Oil Storage) (Wales) Regulations 2016	Known as the Oil storage regulations or OSR Wales, these regulations require anyone in Wales who stores more than 200 litres of oil, to provide more secure containment facilities for tanks, drums, Intermediate Bulk Containers (IBCs) and mobile bowsers. This is to prevent oil escaping into the environment.
<b>Emissions to Air/Noise</b>	
Control of Pollution Act (COPA) 1974 (Sections 60, 61) (amended 1989)	Section 60 of COPA gives powers to the Local Authority to control noise and vibration from construction sites. The basis of the COPA legislation is that Best Practical Means should be used to control noise and vibration pollution. Control is by service of an abatement notice (under S60) on the person responsible for the noise requiring specific controls to minimise noise and vibration. The notice may specify types of plant and machinery, hours of work, boundary noise levels, etc. Section 61 provides for OCU to apply to the Local Authority for consent before works commence. This protects the contractor from action by the local authority under S60, but not from individual residents' complaints.
Clean Air Act 1993	The Act prohibits, subject to certain conditions, the emission of dark and black smoke from chimneys serving boilers and other industrial plant. Limits also apply to dust, grit, sulphur and car fume emissions. All new furnaces shall be so far as practicable, smokeless. The Local Authority is empowered to undertake an examination of a plant likely to be causing air pollution, taking into account the possible relevance of statutory exemptions.
Noise and Statutory Nuisance Act 1993	This Act amends the Environmental Protection Act (EPA) 1990 to make noise emitted from vehicles, machinery or equipment in the street a statutory nuisance. It gives the Local Authority powers to serve an abatement notice on the person responsible.
Noise Act 1996	Introduces a new procedure for Local Authorities to seize noisy equipment, in relation to statutory nuisance offences under the EPA 1990.
Control of Noise at Work Regulations 2005	Requires that all employers must conduct an assessment of the exposure and therefore of the risk of their employees to noise where they have reason to believe that any of the specified action levels for various noise exposures is or could be exceeded.
Construction Plant and Equipment (Harmonisation of Noise Emission Standards) Regulations 1985 (as amended 1995)	Provides for examination and certification of construction plant that comply with noise emission standards. The Regulations require that plant is certified by approved bodies. Various types of plant manufactured after the dates of the regulations are to meet noise emission standards and are certified as such.
Environmental Protection Act (EPA) 1990: Part 3 – Statutory Nuisance (section 80)	When a complaint of statutory nuisance is made to the Local Authority by a person living in its area, the Authority has to take steps to investigate the nuisance. Statutory nuisances include any premises maintained in such a state to be prejudicial to health or a nuisance; any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance. Noise emitted from premises so as to be prejudicial to health or a nuisance.



Environmental Legislation	Summary of Relevance to the Site
BS 5228-1:2009 Code of practice for noise and vibration control on construction and open sites. Noise	Recommends basic methods to control noise on construction and open sites with significant noise levels arising from work activities/operations.
BS 5228-2:2009 Code of practice for noise and vibration control on construction and open sites. Vibration	Recommends basic methods to control vibration on construction and open sites with significant vibration levels arising from work activities/operations.
Health and Safety at Work Act 1974	<p>The primary piece of legislation covering occupational health and safety in Great Britain. It's sometimes referred to as HSWA, the HSW Act, the 1974 Act or HASAWA.</p> <p>It sets out the general duties which:</p> <ul style="list-style-type: none"> <li>• employers have towards employees and members of the public;</li> <li>• employees have to themselves and to each other; and</li> <li>• certain self-employed have towards themselves and others.</li> </ul>
Air Quality Monitoring in the Vicinity of Demolition and Construction Sites (IAQM, 2012)	This document provides updated guidance on air quality monitoring in the vicinity of demolition and construction sites.
<b>Vehicles</b>	
Road Vehicles (Construction and Use) Regulations 1986 (as amended 2015)	It is an offence to use a vehicle if it is emitting 'smoke, visible vapour, grit, sparks, cinders or oily substances' in such a way as is likely to cause 'damage to any property or injury to any person'. It is an offence to use a vehicle in such a way as to cause excessive noise.
Road Traffic (Vehicle Emissions) (Fixed Penalty) Regulations 1997 (as amended 2002 and 2003)	<p>These Regulations give powers to Local Authorities to enforce vehicle emission standards at the roadside as part of the implementation of the national air quality strategy.</p> <p>Under the Regulations, Local Authorities may issue fixed penalty notices to users of vehicles that do not comply with emissions standards set in the Road Vehicles (Construction and Use) Regulations 1986 as amended. Appropriately trained Local Authority officers can test emissions from vehicles with the help of a uniformed police officer to stop the vehicle. The Local Authority officer may also issue a fixed penalty notice to drivers who leave their engines running unnecessarily.</p>
<b>Biodiversity</b>	
Wildlife and Countryside Act 1981	<p>The Act deals with the protection of certain animals, birds and species of flora, as well as providing power to protect habitats, and sites of special scientific interest.</p> <p>It lists the protected animals and plants. Any activity that could result in the killing or injuring of animals or plants could breach the Act.</p> <p>When developing any site, care and caution must be taken to ensure habitats are not damaged.</p> <p><b>Invasive non-native species</b></p> <p>The Invasive Alien Species (Enforcement &amp; Permitting) Order took effect on the 1st December 2019 and will apply to 66 animals</p>



Environmental Legislation	Summary of Relevance to the Site
	and plants that are species of concern in the UK and in Europe. Under the Order, people that deal with invasive species can now be fined if they carry out activities involving invasive species without a licence or permit.
Conservation of Habitats and Species Regulations SI 2017/1012	<p>These Regulations provide for the:</p> <ul style="list-style-type: none"> <li>• designation and protection of European sites;</li> <li>• protection of European protected species;</li> <li>• adaptation of planning and other controls to protect European sites.</li> </ul> <p>They provide for the safeguarding of protected European animals and plants in Great Britain. In particular, they make it an offence, subject to exceptions, to:</p> <ul style="list-style-type: none"> <li>• capture, injure or kill any wild animal of a European protected species;</li> <li>• deliberately disturb wild animals of any such species;</li> <li>• deliberately take or destroy the eggs of such an animal; or</li> <li>• damage or destroy a breeding site or resting place of such an animal.</li> </ul>
Conservation (Natural Habitats etc.) Regulations SI 1994/2716	<p>The Regulations designate sites as special areas of conservation and introduce management agreements which maintain these sites and remove the threat of their degradation and destruction, by restricting potentially damaging operations.</p> <p>They also provide powers to make bylaws which prevent the entry or movement into a site and the killing or taking of wildlife protected by European law and the disturbance of their habitats, breeding grounds and surrounding vegetation. Similar provisions are also issued for plants.</p> <p>There are exemptions to certain regulations, which are fully outlined.</p>
Planning Guidance (Wales) Technical Advice Notes (Wales) 10 – Tree Preservation Orders.	<p>Tree preservation orders can be created under the Town and Country Planning Act 1990.</p> <p>The Regulations contain, amongst other things, the procedure connected to making appeals against such orders as well as the procedure connected to applying for consent to cut down, top, lop or uproot trees protected by a tree preservation order.</p>
The Hedgerows Regulations 1997	Consultation with the Local Authorities is required ahead of any hedgerows removal.
Protection of Badgers Act 1992	The Act establishes provisions relating to badgers, which make it an offence to intentionally kill, injure, ill-treat or take them, unless under strict conditions.
Wild Mammals (Protection) Act 1996	This Act makes it an offence to mutilate, kick, beat, nail (or otherwise impale), stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
Countryside and Rights of Way Act 2000	<p>The Act provides additional levels of protection for wildlife. Schedule 12 of the Act amends the Wildlife and Countryside Act 1981, strengthening the legal protection for threatened species.</p> <p>The provisions make certain offences 'arrestable', create a new offence of 'reckless' disturbance, confer greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and enable heavier penalties on conviction of wildlife offences.</p>



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