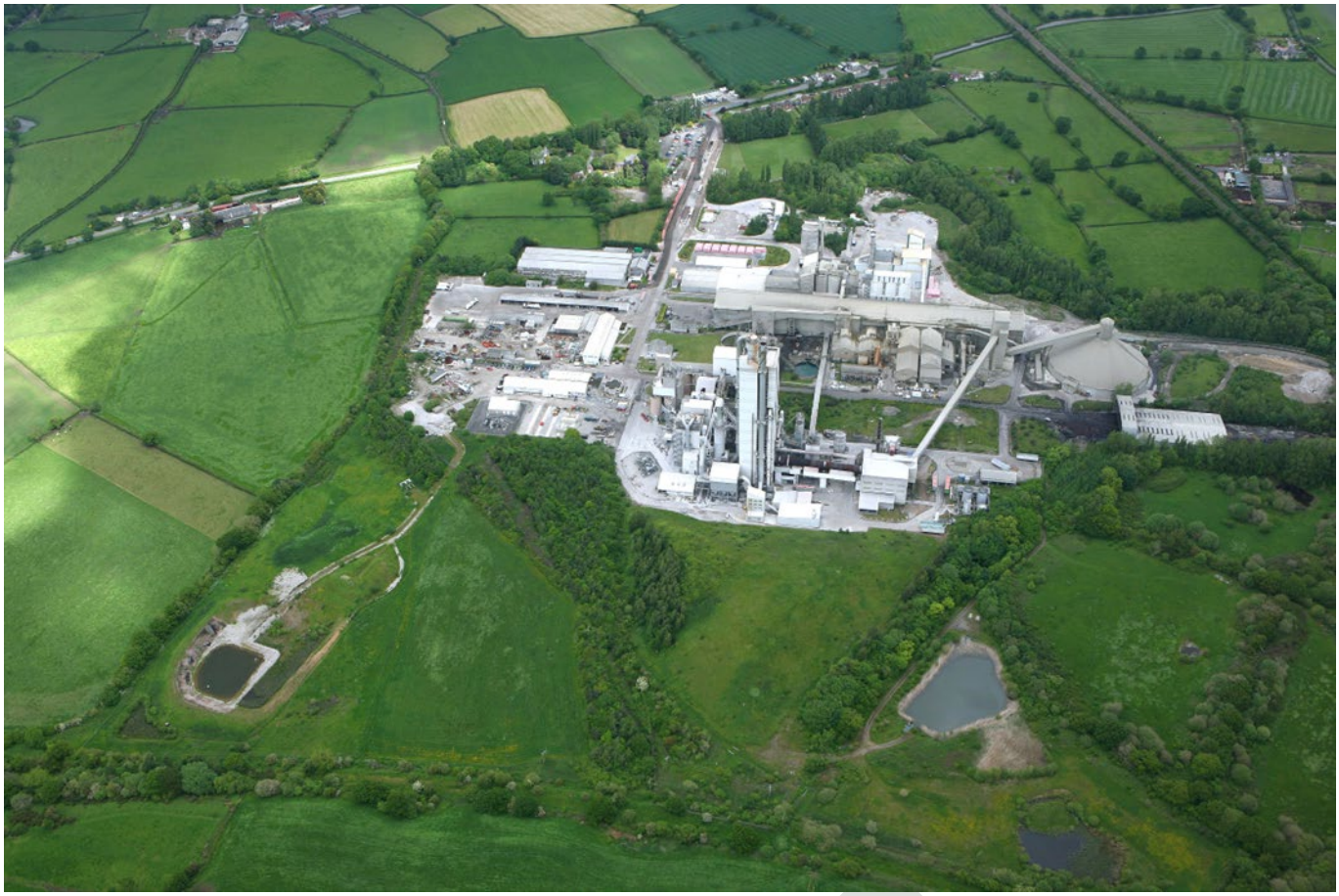


Castle Cement Limited

Carbon Capture and Storage Project – Padeswood, North Wales

Volume 4, Draft Technical Appendix 2.1

Outline Construction Environmental Management Plan

RSK

JUNE 2024

EXECUTIVE SUMMARY

This Outline Construction Environmental Management Plan (OCEMP) was prepared to support the Development of National Significance (DNS) application to Planning and Environment Decisions Wales (PEDW) for the construction and operation of a Carbon Capture and Storage facility (the 'Proposed Development') at the Padeswood Cement Works, Flintshire, Wales ('the Site'). The aim of this OCEMP is to ensure that at the application stage, measures are being considered to prevent unacceptable environmental impacts during the construction phase. This OCEMP provides:

- Mechanisms to mitigate potentially adverse environmental impacts;
- Assurance to third parties that environmental performance requirements will be met; and
- A framework for compliance auditing and inspection of the Proposed Development to ensure environmental performance aims will be met.

The OCEMP is a live document and will be amended throughout detailed design and once the Principal Contractor has been appointed. Once planning permission has been granted, a detailed construction environmental management plant (CEMP) will be produced. The final mitigation measures and designs of the Proposed Development will be reflected in the CEMP. The CEMP will also reflect any emerging designs during the construction phase.

Proposed Development and Site

The Proposed Development will include the construction of a Carbon Capture Plant; comprised of a Combined Heat and Power (CHP) plant and a Post Combustion Carbon Capture and Compression (PCCCC) plant. The proposed Carbon Capture Plant will be located in the south west corner of the Site, with the existing cement works at the centre of the Site. The car park for the Proposed Development will be located at the north boundary, adjacent to the north entrance. Also located along the northern boundary will be the Carbon Capture Plant laydown area. This will be inclusive of a materials laydown, contractor storage area and construction offices.

General Site Arrangements including site set up, working hours and key dates are detailed in **Section 2**.

Key Community Receptors

Key residents and local community receptors have been identified in the OCEMP and proposed measures to minimise and mitigate the potential impacts of the construction phase.

Padeswood Drive, a minor residential road exiting from the A5118, is located within the northern perimeter of the Site and is home to 12 semi-detached residential dwellings. Approximately 400m west of the northern corner of the Site and approximately 200m south west of the south western corner of the Site are small farm holdings with several agricultural buildings and sheds. A small automotive industrial estate is located immediately opposite the main Site access on the A5118.

The impact of the construction activities on these receptors will vary but is anticipated to include:

- Nuisance including:
  - Mud on roads spread by construction traffic;
  - Excessive or poorly directed light; and
  - Litter.

- Dust and fumes from transport and construction activity;
- Noise and vibration from transport and construction activity;
- Traffic and transport disruption;
- Disruption to business; and
- Reduction of access to amenity space.

Pollution Control, Nuisance and Disturbance Measures

Mud, light, litter and water pollution have the potential to cause nuisance and in some cases complaints and statutory nuisance and therefore must be effectively managed. The methods to mitigate the impacts of these forms of pollution are detailed in **Section 4** of this OCEMP.

Noise

A noise and vibration assessment has been undertaken to assess the potential effects from the Proposed Development and how those effects impact on nearby sensitive receptors. The study area for the assessment considers the nearest and most exposed noise sensitive locations surrounding the Proposed Development, including residential properties located at Padeswood Drive, Plas Yn Rhos, Lake Road and isolated properties to the south west of the Site boundary.

To inform the assessment, background noise measurements have been recorded at the site to record the current day time and night time noise levels. This collected data has subsequently been used to understand the potential effects from the Proposed Development and their potential impact on the nearby sensitive receptors.

When considering the potential impact from construction noise, the following was assessed:

- The construction phase programme and the timings of construction phase activity; and
- The proposed construction techniques across the Site to build the Proposed Development.

The noise and vibration assessment considered the noise generated by these construction phase activities and mitigation is proposed to limit the impact on nearby sensitive receptors. The best techniques, technology and methods that are available and feasible at the time of construction will be implemented. The proposed mitigation measures include (but are not limited to):

- The installation of noise barriers (such as solid fencing or specialist noise barriers) surrounding the permitter of construction and laydown areas across the Site;
- All plant, equipment and noise control measures applied to plant will be regularly maintained in good and efficient working order;
- Machines that are only used intermittently will be shut down during periods between works;
- Plant and equipment will be orientated away from nearby sensitive locations, as far as is reasonably practicable; and
- All site personnel will undergo site specific inductions where they will be briefed on noise and vibration control measures.

Air Quality

There are two sources of emissions that will need to be controlled to minimise the potential for adverse effects on air quality:

- Exhaustive emissions from site plant, equipment and vehicles; and
- Fugitive dust emissions from site activities.

Section 4.8 of the OCEMP details the proposed air quality specific mitigation measures to minimise the effects on air quality. These measures are divided into two categories: general measures which are applicable to all sites and measures that are specific to the Proposed Development construction phase (i.e. demolition, earthworks, construction and trackout).

Biodiversity

A Preliminary Ecological Appraisal (PEA) was carried out by RSK Biocensus in 2022, alongside several supplementary surveys, to assess the habitats and the potential for protected species within the Site. The key ecological features and habitats include:

- The Site and surrounding area comprises of the following habitats: broadleaved plantation woodland, mixed plantation woodland, scrub, scattered broadleaved trees, grassland, tall ruderal species, ditches, streams and hedgerows. Ecological surveys confirmed that these habitats are of mostly low value;
- A background desktop study returned records of nine species of bat. Tree and building surveys were undertaken with identified three confirmed roosts in two buildings but no bats or roosts were recorded in any trees. The surveys concluded that the Site supports low numbers of roosting bats;
- There are 14 ponds within the Site, with great crested newts being recorded in 12 of these ponds. As part of the Proposed Development, two ponds located within the south western corner of the Site will be decommissioned (Pond 10 and Pond 11 as shown in **Volume 4, Technical Appendix 5.2, Figure 10**). These will be replaced with four new ponds especially designed for great crested newts. A great crested newt mitigation license will be required for the construction phase and will detail the mitigation necessary for the Proposed Development;
- One active badger sett was found during the aerial tree inspection surveys. Several disused badger setts were found across the Site. There are ongoing surveys for badgers, if the subsequent survey proves that the sett is active, then the closure of the sett will take place during summer of 2024. A badger license will be required for this and will provide further information on mitigation where this is required.

Habitat loss associated with the Proposed Development will be compensated through the creation and enhancement of approximately 7.69ha of habitat which will include:

- Aquatic habitat will be created in the form of four new ponds;
- Creation of broadleaved woodland; and
- Enhancement of semi-improved agricultural grassland.

A Habitat Creation and Management Plan (HCMP) has been developed to minimise the impacts of the Proposed Development and describes how the new habitat areas will be managed to enhance the biodiversity on Site. The HCMP details the proposed mitigation measures and methodologies for the translocation of GCN, the installation of exclusion fences, site supervision, and the creation and management of the new habitat areas. The HCMP is to be read in conjunction with this OCEMP.

Biosecurity

The presence of freshwater bodies on-site requires the minimisation of the transfer of amphibian and fish diseases as well as invasive non-native species. The OCEMP provides steps that contractors are required to implement to minimise the transfer of invasive species and diseases (refer to **Section 4**). This includes (but not limited to):

- All debris, plant fragments and mud must be scrubbed off footwear and rinsed with water;

- Disinfection should comprise soaking in a bleach solution (1 measure of household bleach to 9 measures of water) for 15 minutes or using Virkon solution (1mg/ml) for 1 minute. Fabrics can be washed on a 40°C cycle (with detergent, ensuring sufficient rinsing); and
- Keep field gear (e.g. traps, net frames, buckets) inside plastic bags during transit and storage to reduce the likelihood of transmitting diseases.

Traffic and Transport

Construction traffic will access the Site via the existing site's priority junction off the A5118. During the construction phase; large HGVs will need to enter and depart the Site to the west along the A5118, before taking the A541 and A394 to connection with the A55, a less direct route which avoids height restrictions.

A Travel Plan (refer to **Volume 4, Technical Appendix 11.2**) has been prepared and a construction traffic management plan (CTMP) is to be developed to encourage sustainable travel choices and manage traffic during construction, respectively. The Travel Plan details the infrastructural measures that will be implemented on-site to minimise potential traffic effects, including:

- Cycle Infrastructure (inclusive of 28 cycle parking spaces);
- A car sharing scheme for construction staff to reduce traffic movements;
- Safe segregated routes onsite for pedestrian and construction traffic; and
- Informational measures for site staff such as a travel noticeboard and personalised journey planning.

The CTMP will detail suitable routes for heavy goods vehicles and the management of vehicle movements to avoid peak traffic periods.
There is an existing pedestrian network surrounding the Site with various Public Rights of Way (PRoW) in the vicinity of the Proposed Development. PRoW (301/56/20) which bisects an area of the Site in a north west to south east direction will need to be permanently relocated. It is proposed that the existing footpath (PRoW 301/56/20) will be stopped up where it reaches the Site boundary, and a footpath will then be created in a west to east direction across the southern boundary of the Site in order to continue this route outside of the Site.

Soil and Waste Management

An Soil Resource Assessment and Outline Soil Resource Management Plan has been produced for the Proposed Development. Best practice procedures for soil stripping, handling and storage is detailed in **Section 4** and includes the implementation of a soil handling units plan.

The contractor shall apply the principles of the waste hierarchy (prevent, reuse, recycle, recovery, disposal) to waste management of the Site. The Proposed Development shall seek to promote the re-use of excavated materials through optimisation of cut and fill operations in order to improve the sustainable and cost-effective development of land, as per the *Definition of Waste: Development Industry Code of Practice* (CLAIRE, 2011) (DoWCoP).

An Outline Site Waste Management Plan (OSWMP; refer to **Volume 4, Technical Appendix 14.1**) has been prepared and will be finalised following the appointment of the Principal Contractor. The OSWMP seeks to apply the principles of the waste hierarchy to minimise the generation of waste during demolition, site preparation and construction.

Emergency Preparedness and Incident Response

Section 5 of the OCEMP includes best practice for spill kit preparation, fire prevention and extreme weather events. Incident reporting and investigation methodology is outlined and key emergency contacts provided. **Section 5** of the OCEMP provides information on the standard procedures for the following occurrences:

- Oil, fuel or chemical spill;
- Discovery of unexpected contamination;
- Explosion/fire procedure;
- Silt discharge;
- Complaint over a nuisance;
- Contamination of or by waste materials;
- Discovery of archaeological artefact or heritage feature;
- Ecological discovery or damage; and
- Vandalism/theft procedure.

The project roles and responsibilities for the construction phase of this development are also provided within **Section 6** of the OCEMP.

CONTENTS

TABLES

1 INTRODUCTION

1.1.1 RSK Environment Limited has been commissioned by Castle Cement Limited (hereafter referred to as 'the Applicant') to produce an Outline Environmental Management Plan (OCEMP) to support a Development of National Significance (DNS) application to Planning and Environment Decisions Wales (PEDW) for the construction and operation of a Carbon Capture and Storage facility at Padeswood Cement Works, Flintshire, Wales.

1.1.2 The DNS application falls within the jurisdiction of Flintshire County Council.

1.1.3 Once planning permission has been granted, the OCEMP will be revised and updated to a detailed Construction Environmental Management Plan (CEMP). A CEMP is a live document and is subject to change, as such the CEMP will be continuously reviewed and amended throughout the detailed design phase, the appointment of the Principal Contractor (hereafter referred to as the 'contractor') and during construction. The CEMP will also include the Schedule of Environmental Commitments (i.e., proposed mitigation measures).

1.2 Aim

1.2.1 The aim of this OCEMP is to ensure that the construction of the Proposed Development does not result in unacceptable environmental impacts. In particular, the OCEMP shall:

- Provide a mechanism for ensuring that measures to minimise and mitigate potentially adverse environmental impacts are implemented;
- Provide assurance to third parties that the Applicant's requirements with respect to environmental performance will be met; and
- Provide a framework for compliance auditing and inspection to ensure the environmental performance aims of the Proposed Development are met.

1.3 Objectives

1.3.1 The main objective of this OCEMP is to set out how the construction of the Proposed Development is likely to be managed to reduce, avoid and mitigate potential adverse impacts.

1.3.2 Accordingly, the OCEMP contains the guiding principles and proposed mitigation measures that will be implemented during the construction phase.

1.3.3 A copy of the CEMP will be stored at the site office at all times and will be accessible to all site personnel, sub-contractors and representatives of the relevant enforcement authority.

1.4 Statutory Compliance, Guidance and Best Practice

1.4.1 All site works shall be undertaken in compliance with a CEMP and with all applicable legal and regulatory requirements. It is the full responsibility of the contractors to ensure that their works do not contravene legal requirements, and adherence to the finalised CEMP alone cannot be a full defence regarding legal action against the contractor. The contractor shall comply as necessary with the Construction (Design and Management) Regulations 2015[1] and shall comply with all applicable pollution control regulations in which case the contractor shall obtain and keep current any necessary consent, authorisation, approval or permission. The contractor shall actively maintain a regulatory compliance checklist (e.g. a Consents Register).

1.4.2 The contractor should, where relevant, undertake construction works in accordance with current guidance and best practice, including:

- Environmental Good Practice on-site Guide[2] (C811, 5th edition, Ciria, 202);
- Planning Policy Wales - Edition 12; and
- Pollution prevention guidance[3].

1.5 Environmental Management System

1.5.1 This document has been produced in accordance with principles outlined in ISO 14001:2015. The contractor is required to adhere to these environmental values and standards whilst implementing this document, including the promotion of environmental awareness among their staff, sub-contractors and suppliers engaged on the construction works.

1.5.2 The Applicant operates an ISO 14001:2015 certified Environmental Management System (EMS). This is to be used in conjunction with all relevant legal and other requirements for the environmental management of this Proposed Development.

[1] https://www.legislation.gov.uk/uksi/2015/51/made/data.pdf

[2] https://www.ciria.org/ItemDetail?iProductCode=C811&Category=BOOK&WebsiteKey=a90983f2-1465-42c2-b2f3-70ca25db674a

[3] https://www.gov.uk/guidance/pollution-prevention-for-businesses.

The environmental performance of the Site will be regularly checked in the form of site inspections and environmental audits. The implementation of the EMS will be audited both internally and externally.

1.5.3 The contractor appointed for the Proposed Development will be expected to demonstrate the same level of commitment to the principles of ISO 14001:2015, and to have an EMS certified to the standard. The contractor is required to mirror the Applicant's environmental values and standards including the promotion of these values and standards among their staff, sub-contractors and suppliers engaged during the construction works.

2 THE PROJECT

2.1.1 It is the Applicant (Castle Cement Limited) who has ultimate responsibility for the construction works. The Applicant may employ a Principal Contractor and (directly or indirectly as required) sub-contractors to carry out works on the Site.

2.1.2 The main details of the Proposed Development are summarised in this section; the description is limited to an overview of the main elements/approaches sufficient to prove an understanding of the approach to the planned works, and the roles of those main parties responsible for undertaking each part of the works.

2.2 Project Description

2.2.1 Padeswood Cement Works producing cement for use in bulk for ready mix concrete, production of concrete products and bagged cement sold through builders' merchants. Cement production generates Carbon Dioxide (CO_2) emissions from the calcination of limestone irrespective of the fuel source.

2.2.2 The Proposed Development aims to capture up to 800,000t of CO_2 per year from the existing cement works which will require the construction of a Carbon Capture Plant; comprising of the following components:

- A Combined Heat and Power (CHP) plant with 15Mwe (minimum) and 83MW (minimum) thermal of installed capacity, to produce electricity and heat to power the carbon capture equipment; and
- A Post Combustion Carbon Capture and Compression plant (PCCCC), to extract CO_2 from waste gases and compress it for transport and storage.

2.2.3 The CHP plant will exceed the 10MWe threshold specified in the DNS (Specified Criteria and Prescribed Secondary Consents) Regulations 2016 and therefore the Proposed Development will be the subject of a DNS application for determination by Welsh Ministers.

2.3 Site Location and Plan

2.3.1 The Site is approximately 70.9ha in size and is broadly rectangular in shape with the existing operations in a central belt stretching from the western edge to the eastern edge. The landform across the Site ranges from approximately 105.7m Above Ordnance Datum (AOD) in the west to approximately 107.1m in the east.

The area within which the Proposed Development will be constructed and operated is located to the south west of the existing Site.

2.3.2 A site location plan can be found in **Appendix A**.

2.4 General Site Arrangements

Site set up and compound

2.4.1 The site masterplan has been provided in **Appendix B**. In addition to indicating the locations of the key features of the Proposed Development described in **Section 2**, the masterplan includes the proposed locations for construction related activities such as:

- Storage compound;
- Plant shut down area;
- Contractor village and welfare
- Temporary construction vehicle parking areas;
- Materials laydown area; and
- Contractors storage area.

Fencing and site security

2.4.2 A construction fence will be built around the proposed construction areas to physically segregate construction and operations personnel and activities. In addition, fencing will be installed around the perimeters of the adjacent woodland to prevent the incursion of vehicles and personnel.

2.4.3 Fencing materials, specifications and exact locations are yet to be finalised.

Site lighting

2.4.4 Night-time during construction will be undertaken in accordance with a lighting management plan to avoid sensitive ecological areas and to reduce the impact on nocturnal animals. The locations and specifications of the proposed lighting is yet to be finalised, however the lighting plan will be prepared in accordance with the principles outlined in **Section 4** of this OCEMP.

Working hours

2.4.5 The normal hours of working (including access and egress) on any part of the Proposed Development during the construction phase are proposed to be:

- 07:00 hours to 19:00 hours Mondays to Fridays; and
- 07:00 hours to 13:00 hours on Saturdays.

2.4.6 A staggered start and finish for contractors/deliveries is proposed to minimise vehicles entering and leaving the site at peak traffic times.

2.4.7 There will be specific activities that will require extended dayshift e.g. completion of concrete pours and slab power floating of building floors, pipework hydrotesting activities, or commissioning activities that cannot be stopped once started. These are likely to be discrete in nature and not a daily norm.

2.4.8 There may be activities that will necessitate 24/7 shift work such as radiography and pressure testing and the option for a nightshift as the Proposed Development enters final cable termination and commissioning stages.

2.4.9 The following controls will also apply to the works:

- No works will take place on Sundays or Public Holidays; and
- There will be no stacking of lorries at the Site boundary outside of the working hours.

2.4.10 Where on-site works are to be conducted outside the normal construction working hours they will comply with any restrictions agreed with Flintshire County Council, in particular regarding control of noise. Normal hours of work set out above do not apply to emergency works nor to equipment that is required to operate continuously.

2.5 Project Programme and Key Dates

2.5.1 It is estimated that construction of the Proposed Development will be undertaken across a 37-month period with site preparation anticipated to take seven months and 30 months for the construction of the CHP and PCCCC, with operation estimated by 2029. Proposed traffic movements can be spilt into two distinct phases:

- HGV peak covering site setup works including earthworks, civils, access track construction and parking area construction; and
- LGV peak covering intensive site works (i.e. the construction of the CHP and PCCCC).

3 ENVIRONMENTAL ASPECTS

3.1.1 Multiple environmental surveys have been undertaken to determine the potential risks associated with the Proposed Development. A draft Environmental Statement has been prepared by RSK Environment for submission with the DNS application. This was preceded by a scoping report which was submitted to PEDW on 04 November 2022.

3.1.2 The key environmental sensitivities of the Site and in the vicinity of the Site boubdary are identified and described in this section. In addition, the potential for environmental impacts on these features likely to arise as a result of the Proposed Development construction works are also summarised in this section. Environmental mitigation measures are considered in **Section 4**.

3.2 Site Setting

Location

3.2.1 The Padeswood Cement Works is located to the south of Buckley, near Mold, Flintshire, North Wales, CH7 4HB at National Grid Reference SJ 29127 62227, as illustrated in the Site Location Plan (refer to **Appendix A**).

Residents and Local Community

3.2.2 Padeswood Hall Farm, a property owned and leased to private tenants by the Applicant, is located within the Site towards the northern boundary. A second property, Padeswood Hall, is located approximately 100m west of Padeswood Hall Farm is also located within the Site. Padeswood Hall was previously used as an office but has been vacant for over a decade.

3.2.3 Padeswood Drive, a minor residential road exiting from the A5118, is located within the northern perimeter of the Site and is home to 12 semi-detached residential dwellings. Approximately 400m west of the northern corner of the Site and approximately 200m south west of the south western corner of the Site are small farm holdings with several agricultural buildings and sheds. A small automotive industrial estate is located immediately opposite the main Site access on the opposite side of the A5118. Otherwise, the land surrounding the Site comprises agricultural fields with hedgerow field boundaries and there are several small areas of woodland. Screening is used in areas of the Site close to nearby receptors, such as adjacent to the A5118 along the northern boundary of the Site.

3.2.4 Nearby places of note and their approximate distance and direction from the Site boundary include:

- Penyffordd – 1km south west;
- Penymynydd – 1.5km west;
- Buckley – 2.1km north west;
- Pontblyddyn – 2.2km south;

- Llaog – 2.9km west;
- Mold – 5.5km west;
- Broughton – 5km east;
- Llay – 7.5km south; and
- Chester – 12.1km north east.

Potential effects associated with the construction of the Proposed Development

3.2.5 The particular sensitivity of each receptor to various construction activities will depend on the location and proximity to the Site and identified transport routes, however, it is anticipated that the following effects may be of concern:

- Nuisance including:
  - Mud on roads spread by construction traffic;
  - Excessive or poorly directed light; and
  - Litter.
- Dust and fumes from transport and construction activity;
- Noise and vibration from transport and construction activity;
- Traffic and transport disruption; and
- Reduction of access to amenity space.

3.2.6 These potential effects and proposed mitigation measures are set out in greater detail in the following sections.

3.3 Air Quality

3.3.1 Based on the Institute of Air Quality Management (IAQM) construction dust guidance (IAQM, 2024)[4], the Study Area for sensitive human receptors for air quality effects arising from demolition, earthworks and general construction activities is considered to be up to 350m from the Site boundary. For trackout activities, the Study Area has considered up to 50m from the edge of the roads likely to be affected by dust effects from trackout. The Study Area for sensitive ecological receptors for air quality effects arising from demolition, earthworks and general construction activities is considered to be up to 50m from the Site boundary.

3.3.2 Atmospheric emissions from construction activities will depend on a combination of the potential for emissions (the type of activity and prevailing conditions) and the effectiveness of control measures. In general terms, there are two sources of

[4] https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf

emissions that will need to be controlled to minimise the potential for adverse environmental effects:

- Exhaustive emissions from site plant, equipment and vehicles; and
- Fugitive dust emissions from site activities.

Exhaust Emissions from Plant and Vehicles

3.3.3 The operation of site equipment, vehicles and machinery will result in emissions to atmosphere of exhaust gases, but such emissions are unlikely to be significant, particularly in comparison to levels of similar emission components from vehicle movements on the surrounding highways network.

3.3.4 Construction traffic is likely to comprise haulage/construction vehicles and vehicles used for workers' trips to and from the Site.

Fugitive Dust Emissions from Construction Works

3.3.5 Construction activities that are considered to be the most significant potential sources of fugitive dust emissions are:

- Demolition of existing buildings (Padeswood Hall and Padeswood Hall Farm) and the size reduction and handling of materials.
- Earth moving, due to the handling, storage and disposal of soil and subsoil materials;
- Construction aggregate usage, due to the transport, unloading, storage and use of dry and dusty materials (such as cement and sand);
- Movement of heavy site vehicles on dry or untreated haul routes; and
- Movement of vehicles over surfaces where muddy materials have been transferred off-site (e.g. onto public highways).

3.3.6 Proposed air quality mitigation measures are detailed in **Section 4.**

3.4 Noise

3.4.1 The acoustic environment surrounding the Proposed Development site will vary significantly depending on proximity to prominent noise sources; these sources include agricultural activities, road and rail infrastructure, industrial facilities, and commercial premises/activities.

3.4.2 The noise and vibration assessment undertaken takes into account of any embedded mitigation measures that will be incorporated into the design of the

Proposed Development which includes current best practice techniques to reduce noise.

3.4.3 Noise levels at receptors in the vicinity of the Site are expected to be dominated/influenced by the existing cement works, the A5118 highway to the north of the existing facility and the rail line to the east.

3.4.4 Typical examples of receptors sensitive to noise and vibration include dwellings, hospitals, healthcare facilities, education facilities, community facilities, international and national or statutorily designated sites and cultural heritage assets.

3.4.5 The receptors within the Study Area comprise isolated farmhouses and roadside dwellings.

3.4.6 Construction phase noise impacts arising from equipment, vehicular movements and processes related to the construction of the Proposed Development have the potential for a short-term impact however standard construction methodologies are to be employed to control noise and vibration during construction in accordance with current legislation and standards including British Standard 5228-1:2009+A1:2014: 'Code of Practice for noise and vibration control on construction and open sites - Noise'.

3.4.7 The Control of Pollution Act 1974[5] (COPA 74) gives local authorities power for controlling noise and vibration from construction sites. If deemed necessary by a Council, a Section 61 consent may be utilised to agree methods, times durations and noise levels with an Applicant.

Figure 3.1 Summary of Noise and Vibration effects

Receptor	Potential Effects	Additional (Secondary and Tertiary) Mitigation	Residual Effects
Construction Phase - Noise			
Human Receptors	Receptors are predicted to noise levels that exceed the threshold criteria in accordance with BS 5228-1.	Supplementary acoustic screens around Site boundary.	**Moderate adverse (not significant)**
Construction Phase – Traffic Noise			
Human Receptors	Receptors are not predicted to exceed the threshold criteria.	No additional mitigation is required.	**Negligible (not significant)**

[5] https://www.legislation.gov.uk/ukpga/1974/40/data.pdf

3.4.8 To minimise the impact on receptors during the construction process; noise mitigation measures have been detailed within **Section 4** of this OCEMP.

3.5 Cultural Heritage

3.5.1 Desktop studies and field surveys confirmed that there are no designated sites (i.e. world heritage sites, scheduled monuments, Grade I or Grade II listed buildings or historic landscapes) within the Site boundary.

3.5.2 The Study Area includes a 5km buffer surrounding the Site boundary for designated assets and a 1km buffer surrounding the Site boundary for non-designated assets, within which the archaeological and historical development of the Site and surrounding area is discussed.

3.5.3 There are 28 Scheduled Monuments, five Conservation Areas, 240 listed buildings comprising 11 grade I listed, 19 grade II* listed, and 210 grade II listed, and nine registered parks and gardens within the wider 5km Study Area.

3.5.4 There are 14 non-designated heritage assets located within the Site boundary : an area of Medieval ridge and furrow (988588), Post-Medieval Padeswood Hall (409419), gardens (266274), farm (178363), and associated buildings (178802 – 178806), Post-Medieval coal shafts at Bannel Farm (98339) and the Works (98338), a Modern cement works (305769), a Modern football ground near Padeswood Hall (401374), and a Modern railway siding associated with the cement works (HA01). There are a further 155 within the 1km Study Area. These comprise a single Bronze Age asset, two Roman, two Early Medieval, six Medieval, 132 Post-Medieval and 23 Modern.

3.5.5 There is a high potential for below ground archaeological remains to be present within the footprint of the Proposed Development from the Medieval period onwards, likely to be of High (National) importance associated with the Early Medieval Wat's Dyke, and of Low (Local) importance associated with Medieval ridge and furrow, the Post-Medieval Padeswood Hall and farm, and the Modern cement works and football field. There is a low potential for below ground archaeological remains to be present from the Palaeolithic to Roman periods, with any remains likely to be stray artefacts of Low (Local) importance.

3.5.6 PEDW may require further archaeological investigation, either as a staged field evaluation to be submitted as supporting information with a planning application, or as a condition of consent. A geophysical survey was conducted in November 2023 by Headland Archaeology which found the archaeological potential of the areas to be low with no anomalies of archaeological potential found.

3.6 Biodiversity

3.6.1 A Preliminary Ecological Appraisal (PEA) was carried out by RSK Biocensus in 2022; with additional surveys completed following the PEA, including:

- Hedgerow survey;
- Invasive species survey;

- An Updated species survey list;
- eDNA survey of a pond in the south west corner (Pond 12 as shown in **Volume 4, Technical Appendix 5.2, Figure 10**);
- Reptile surveys;
- Breeding bird surveys;
- Bat activity surveys – transects and static monitoring;
- Water vole surveys; and
- Badger surveys.

3.6.2 Based on desk and field assessments, a selection of habitats and species were scoped out of the Ecological Impact Assessment where it was deemed unlikely that significant effects would result from the Proposed Development. These were:

- Statutory designated sites;
- Non-statutory designated sites;
- Hedgerows;
- Ponds;
- Neutral Grassland;
- Poor Semi-improved grassland;
- Invertebrates;
- Reptiles;
- Common nesting birds;
- Barn owl;
- Peregrine (birds);
- Foraging and commuting bats;
- Hazel dormouse;
- Water vole;
- Otter; and
- Other species of principal importance.

Habitats

3.6.3 The following habitats were noted during the Phase 1 Habitat Survey.

Broadleaved plantation woodland, Mixed plantation woodland

3.6.4 Large parts of the Proposed Works Area are formed by poor plantation woodland containing Sycamore, Alder, Hazel, Hawthron, Ash, European Larhc, Scots Pine and Lime. The understorey was dense and impenetrable in places, and contained additional woody species including Silver Birch, Beech, Blackthorn, Pedunculate

Oak and Maple leaf Viburnum. The ground flora was relatively sparse and was mostly comprised of species typical of the neighbouring grassland.

Dense and scattered scrub

3.6.5 Scrub is present across numerous areas of the Site, particularly in the north west and south west corners. The habitat is typical of undisturbed areas in which vegetation is left to colonise. Species included variety of native and non-native species.

Tall ruderal

3.6.6 Tall ruderal is present elsewhere across the Site, and was also found scatted throughout other habitats but not in an area large enough to map distinctly.

Standing water – ditches

3.6.7 The Proposed Development Area contains a wet ditch in the mixed plantation woodland belt. It runs from the cement works to the north to the stream along the southern boundary though no flow was visible during the survey. The ditch contained little water and was found to have almost dried during water vole surveys in August 2022.

Running water – streams

3.6.8 There was a small stream running along part of the Site's southern boundary which then continued off-site to the west. The stream flowed in a westerly direction.

Ponds

3.6.9 Pond 10 and Pond 11 (as shown in **Volume 4, Technical Appendix 5.2, Figure 10**) in the south west corner of the Proposed Development will replaced by a stormwater holding pond for the new Carbon Capture Plant. Ponds 10 and 11 have previously contained a medium population of great crested newts, both ponds will be replaced by four new ponds in the Landscape and Biodiversity Mitigation Area found in the north eastern corner of the Site (shown as Proposed Landscape and Habitat Enhancements in **Volume 4, Technical Appendix 9.4**). The Proposed

Development will not result in the loss of any other ponds at the Site as these are situated within the retained area.

Protected and notable species

Bats

3.6.10 The background data search (BDS) returned record of nine species of bats.

3.6.11 Tree assessments and surveys were undertaken, these included ground level tree assessment and aerial inspections and building assessment and surveys included emergence surveys and preliminary roost assessment.

3.6.12 Three confirmed roosts on two buildings were identified during the emergence surveys.

3.6.13 Upon aerial and endoscope inspection, no bats were observed in any of the trees and no evidence of roosting within these features was recorded.

3.6.14 After the first aerial inspection, three trees were categorised as high roosting potential and 13 trees were categorised as moderate roosting potential. Six trees were categorised as having potential for hibernating bats.

3.6.15 The Site supports low numbers of roosting bats, and therefore the feature's intrinsic value is considered to be of local level.

Amphibians/Great crested newts

3.6.16 The BDS returned records of five amphibian species, including great crested newts. There are 14 ponds on Site and great crested newts have been previously recorded in 12 of these (a number of these ponds comprise mitigation and enhancement created specifically for great crested newts in connection with previous planning applications at the Site). The Site provides suitable terrestrial habitat for great crested newts including woodland, scrub, hedgerows and rough grassland. There are hibernation opportunities within these habitats as well as within piles of materials e.g. logs or rubble. Great crested newts have previously been found using construction materials as a refuge and the active parts of the Site are now covered by a mitigation licence. Amphibians have also been incidentally recorded on the Site during reptile surveys and a bat activity transect, including great crested newts, common toad and smooth newt.

Badger and other nocturnal mammals

3.6.17 The BDS returned records of badger, most recently from 2021, however no evidence of badgers was recorded on the Site or within 30m of the Site boundary (where access allowed) during the Phase 1 Habitat Survey. Woodland, scrub and

hedgerows provide suitable habitat for sett building and grassland fields provide extensive foraging habitat.

3.6.18 During the aerial tree inspections undertaken in June 2023, a badger sett considered to be active was found incidentally within the Site. Evidence of badger activity was also found within the surrounding area, including snuffle holes and latrine.

3.6.19 The specific locations of badger setts are confidential and have not been provided in this OCEMP.

3.6.20 Records of hedgehog were identified within 1km of the Site.

3.6.21 Habitats within Site that are suitable for these species include woodland, rough grassland and scrub. The Site is likely to only support low numbers of badger and hedgehogs.

Invasive species

3.6.22 Contoneaster species were recorded within the Site but will not be disturbed by the construction of the Proposed Development to prevent spreading. Virginia-Creeper is present on the roof of a garage building in the north west of the Site which is due to be demolished.

3.6.22.1 Proposed mitigation measures in relation to biodiversity can be found in Section 4 of this OCEMP.

3.7 Landscape and visual impact

3.7.1 A Landscape and Visual Impact Assessment was used to identify and assess the significance of and the effects of change resulting from development. The tallest structure in the Proposed Development would have a maximum height of 117.9m. A Study Area of 5km from the Site boundary is used for the purpose of the Landscape and Visual Impact Assessment. A more detailed description of the Study Area for the Landscape and Visual Impact Assessment is provided in **Section 9.4** of **Volume 2, Chapter 9: Landscape and visual impact.**

3.7.2 Visual Impact mitigation measures can be found in **Section 4** of this OCEMP.

3.8 Land and soils

3.8.1 The survey has identified non-calcareous over well drained loamy sand soils over sand and fine loamy soils over clayey soils with slightly impeded or impeded drainage. These soils form agricultural land of Grade 2 (22.4ha, 54.1%), Subgrade 3a (12.4ha, 29.9%) and Subgrade 3b (4.9ha, 11.8%) quality. The principal

limitations to the agricultural use of the land are either soil wetness or soil draughtiness.

3.9 Water

3.9.1 No main rivers are located in the vicinity of the Site.

3.9.2 The Site is located within Flood Zone 1 as identified on the Natural Resources Wales flood risk assessment, and therefore, the probability of river flooding is low with a 1 in 1,000 annual probability of flooding (<0.1%). The Flood Consequences Assessment also considers the potential consequences of flooding from all other sources, which include directly from rainfall on the ground surface and rising groundwater, overwhelmed sewers and drainage systems, and from reservoirs, canals lakes and other artificial sources, and concludes the potential flood risk is low to medium.

3.9.3 General best practice for water resource and flood risk is detailed in **Section 4.**

3.10 Traffic and transport

3.10.1 The Site is accessed via the existing Site's priority junction off the A5118. This is a two-way single carriageway that connects to the A550 and Penymyndd village is a 4-arm roundabout approximately 1.3km east of the Site access junction and to the A514 at a priority junction approximately 3.8km to the west.

3.10.2 Particularly during the construction phase of the Proposed Development, large HGVs will need to enter and depart the Site to the west along the A5118, before taking the A541 and A394 to connection with the A55, a less direct route which avoids height restrictions. At present, the existing development traffic routes were required to avoid this link however most vehicles are within the height limit of the railway bridge with a height restriction of 14'6".

3.10.3 It is estimated that over the course of the whole construction programme (37 months) there will be a total 1,127 daily trips of HGVs and LGVs. The existing road network adjacent to the Proposed Development has sufficient capacity to accommodate the increase in HGV and LGV construction traffic movements during

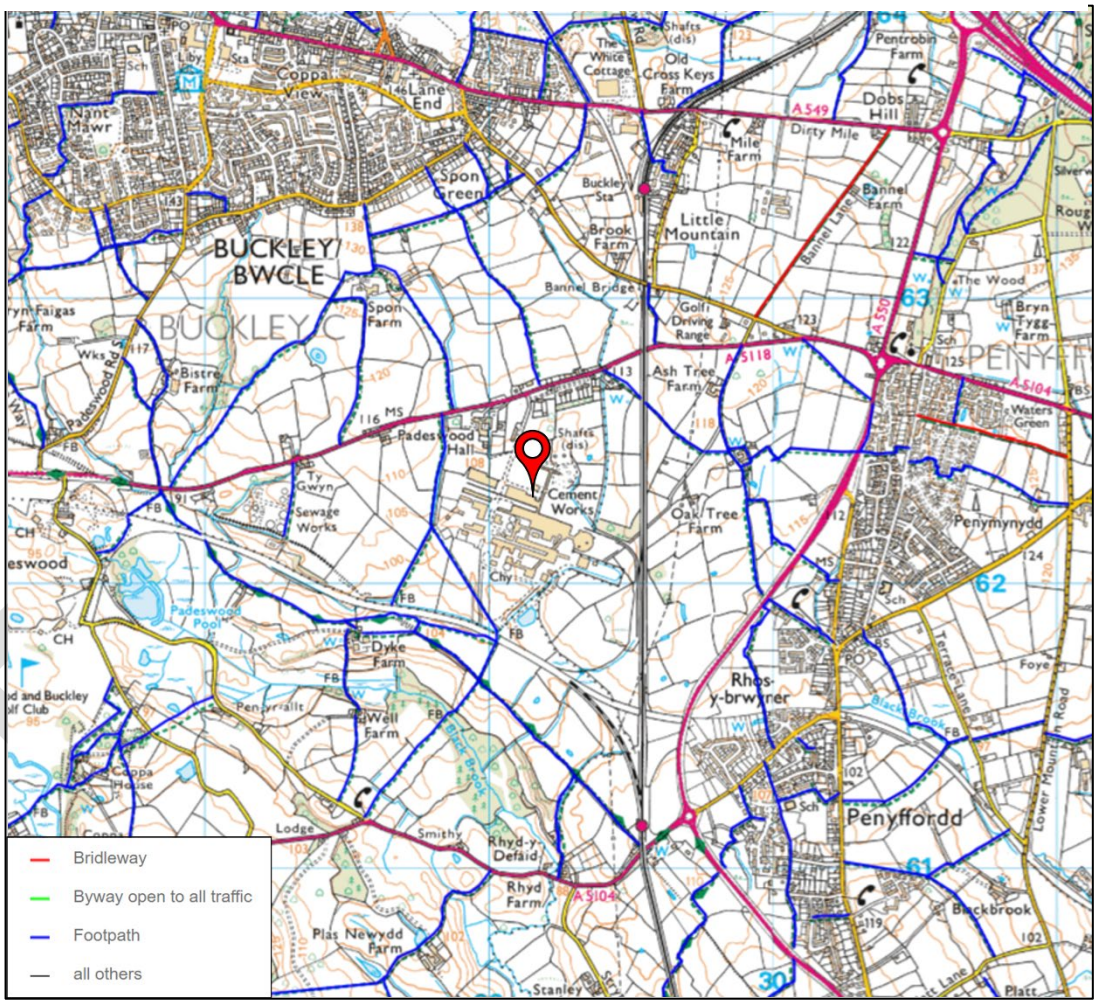
the proposed construction phase. Traffic management measures are detailed in **Section 4** of this OCEMP to mitigate the impact of construction traffic.

Public Right of Way

3.10.4 There is a reasonable pedestrian network surrounding the Site with various public rights of way (PRoW) in the vicinity of the Proposed Development. **Figure 3.1** illustrates the PRoW in the vicinity of the Proposed Development.

3.10.5 To the east of the Site there are sporadic areas of footway provisions between the Site access and Penymyndd in areas with residential properties. Where there is no footway provision, there are grass verges lining the carriageway.

Figure 3.2 Local public rights of way



3.10.6 There are no cycle lanes or dedicated routes within the direct vicinity of the Site boundary.

3.10.7 However, the A5228 is a fairly wide road subject to a 40-mph speed limit, so could be suitable for confident cyclists to travel to and from the Site.

3.10.8 There are no National Cycle Network (NCN) routes in the area surrounding the Site, with the closest route (NCN 5) running along the coast of North Wales into Chester.

Proposed PRoW diversion

3.10.9 The Proposed Development will occupy the south western portion of the Site. As a result, the existing PRoW (301/56/20) which bisects this area of the Site in a north west to south east direction will need to be permanentlyd.

3.10.10 It is proposed that the existing footpath (PRoW 301/56/20) will be stopped up where it reaches the Site boundary, and a footpath will then be created in a west to east direction across the southern boundary of the Site in order to continue this route outside of the Site.

3.10.11 The plan showing the full extent of the footpath diversion in relation to the Site is included in **Appendix C**. As depicted in **Appendix C**, approximately 437m of footpath will be removed (between points A and B on the plan), and a 385m section of footpath will be implemented (between points C and D) so that a through-route is maintained from north to south.

3.11 Material assets and waste

3.11.1 Wherever practicable, the waste hierarchy principle (prevent, reuse, recycle, recovery, disposal) will be adopted. This will be particularly appropriate with respect to the areas of the Site containing historic waste and/or potentially contaminated materials.

3.11.2 Waste management procedures can be found in **Section 4** of this OCEMP.

4 ENVIRONMENTAL MANAGEMENT PROCEDURES

4.1.1 Environmental management measures have been developed to avoid or reduce environmental impacts associated with the construction works. **Appendix D** includes an environmental management matrix that illustrates the association between construction activities, environmental aspects, impacts and the environmental management measures. The matrix defines responsibilities and the frequency of each action.

4.1.2 **Appendix A** contains the Site layout plan which will be used for the construction of the Proposed Development.

4.1.3 Environmental management measures will be incorporated into a Risk Assessments and Method Statements (RAMS) which will be prepared by the contractor. All RAMS shall be communicated to the workforce by the contractor's Site Manager (hereafter referred to as the 'site manager').

4.1.4 As noted in **Section 1**; this OCEMP contains the guiding principles and proposed mitigation measures that will be implemented during the construction phase. Environmental management best practices have been included in this Section, but as this is a live document, the proposed measures are subject to change.

4.1.5 **Sections 4.2 to 4.7** presents general environmental management measures which are considered best practice for all construction sites, whereas **Sections 4.8 to 4.14** detail the proposed specific mitigation measures for each environmental factor (i.e. air quality, biodiversity and traffic).

4.2 Fuel storage and refuelling

4.2.1 Fuel storage and refuelling will be managed in accordance with the following principles during construction:

Fuel Storage

- Fuel levels shall be monitored and recorded regularly (sudden changes may be a sign of leaks);
- Fuel tanks, secondary containers and storage compounds shall be inspected regularly for damage, corrosion, leaks, faults and vandalism. Repair defects/faults immediately and retain records;
- The secondary containment system must provide storage for at least 110% of the tank's maximum capacity and ensure that any valves, filters, sight gauges, vent pipes or other ancillary equipment are also situated within the secondary containment system and arranged so that any discharges will be contained;
- Fully lockable and labelled bunded fuel tank shall be used;

- Sufficient spill kits shall be provided. Note: for sites close to water courses and drains, enhanced spill kits must be provided. Spill kit supply to be monitored regularly to ensure adequate stock remains full;
- All drains located adjacent or near to refuelling points shall be covered by Gully Guards before commencing transfer. All fuel transfers to be supervised;
- Drums can only be used for fuel volumes <300 gallons and must be stored in a secure interceptor drum store within the designated refuelling area;
- Oil spill and oil impacted water must be collected in a fuel safe container with fuel tag and fuel spills must be contained using the spill kits provided. Spills should be reported to the site manager immediately;
- Records must be maintained of all environmental incidents, mitigation works, clean up method and validation; and
- A suitable container for hazardous wastes must be provided within the waste compound.

Refuelling

- The refuelling area shall be located away from drains and watercourses (>10m from a watercourse and >50m from a spring, well or borehole);
- No fuel storage or refuelling activities should be placed/carried out on or near permeable pavement. The site manager must be informed before refuelling mobile plant and a drip tray must be used;
- Mobile plant must be refuelled away from surface waters, drains, permeable pavements and open excavations. A fuel drip tray must be used; and
- Refuelling compound will be secured/locked out of hours.

4.3 Use and storage of hazardous materials/substances

4.3.1 The construction of the Proposed Development will be carried out in accordance with best practice and will adhere to all relevant health and safety legislation. The use and storage of solvents, cements, adhesives, grout and concrete shall be managed as follows during construction:

- All drains adjacent or near to concreting works shall be covered with Gully Guards before commencing mixing;
- Concrete mixers washout, ready mix concrete lorries, and equipment washings must be securely confined within a container situated at a distance from watercourses to ensure safe containment. The washout will be tankered away by a subcontractor or discharged into the foul sewer only under a valid consent, if the quantity is small and the weather is warm evaporation can take place. The remaining particles at the bottom of the container then can be removed and treated accordingly;
- Surplus dry concrete, cement and grout is to be collected and reused where possible e.g. as inert rubble;

- Concrete washings shall be collected and discharged to the designated area on Site once suspended solids have settled;
- Areas of permeable pavement are not to be used for the temporary storage of cement bags. If unavoidable ensure adequate protection measures are in place to prevent the pavement from becoming blocked;
- All hazardous materials shall be labelled, sealed and stored with their Control of Substances Hazardous to Health (COSHH) assessment in a bunded and lockable container away from drains and watercourses when not in use;
- Hazardous liquids shall be transferred using a funnel and drip tray and sealed and returned to the container immediately after use. Damaged containers shall be reported to the site manager;
- COSHH datasheet will be read and understood before using any hazardous material. All usage shall comply with its requirements;
- Hazardous liquids must be re-sealed after use. Empty containers are to be disposed of to the designated container within the waste compound; and
- Construction workers are required to wear Personal Protective Equipment such as gloves and face masks (where appropriate) to prevent dermal contact and inhalation or ingestion.

4.4 Use of plant and equipment

4.4.1 The Site will predominantly operate with a 'just in time' delivery protocol and materials will not be stored within 8m of any watercourse (including the field ditches). Fuels will be stored in a double-skinned, locked, and bunded fuel bowser as far away from watercourses as possible and away from the regular passage of site traffic. Refuelling will be carried out over a bespoke drip tray, which will be regularly maintained and inspected for the presence of rainwater. Any rainwater must be removed for specialist disposal. A spill kit will be located next to any bowser. Any other potentially hazardous material will also be stored within designated impermeable, bunded areas. Materials, plant, vehicles, spill kits and fuel storage areas will be protected from vandalism and inspected regularly for signs of tampering or damage. All keys will be removed from unattended vehicles/plant. In addition, the following measures will be followed:

- To assist with noise attenuation, where possible, generators are to be located within a refuelling area. If this is not possible they will be located away from adjacent residents, also taking account of prevailing wind conditions;
- Maintain plant and position exhaust away from works areas and occupied areas when in use;
- Mains electricity shall be used where available. If not, generators are to be used and must be sized for the required output; if diesel they must be set up by the supplier;
- All plant shall be suitability maintained and noise screens shall be used where required. Use generators having a sound power level rating below 65db(A), fully canopied and silenced;

- Sufficient spill kits shall be provided. Kit must be replenished as required;
- All equipment shall be inspected before use and any defects/faults reported to the site manager;
- Portable generators must be authorised by the site manager and used within refuelling areas where possible. If not, they must be located above ground in an accessible area and fitted with a drip tray; and
- Turn off all plant overnight.

4.5 Site set up, groundwork and construction

4.5.1 Site set-up, groundwork and construction of the Carbon Capture Plant will be managed in accordance with the following measures/principles:

- In addition to PEDW's planning conditions, consent may be obtained for particularly noisy activities before starting works e.g. crushing and piling. Contractors and operatives must be informed of relevant planning conditions and any additional consents;
- Minimise the use of builders skips;
- Inspect lifting and locking points, doors and door locks and general condition weekly as a minimum;
- Materials shall be adequately managed to avoid spoilage or over-ordering, and surplus materials shall be minimised;
- The provision of a suitable and sufficiently sized materials storage compound that is lockable and provides an above-ground covered area, protected from wind and rain;
- Encourage the reuse of cut-offs and arrange for suppliers to take back unused surplus materials and packaging;
- Surplus materials are to be reused on Site where possible. All reuse and recycling to be carried out in accordance within the terms of a valid waste exemption or voluntary codes of practice/protocols;
- Excavated material surplus shall be minimised so far as practicable; details of all inert material reuse on-site including composition and disposal location must be mapped and records retained; and
- If necessary temporary bunding and/or settlement ponds will be installed to allow for isolation and on-site treatment of any sediment laden or contaminated water prior to discharge to the drainage system.

4.6 Lighting

4.6.1 Lighting has the potential to cause nuisance and in some cases complaints and statutory nuisance and therefore must be effectively managed. A lighting management plan will be prepared and will detail how sensitive ecological areas will be avoided and how the impact on nocturnal animals will be reduced. In additional

the following processes and procedures may be implemented to control potential lighting issues during the construction phase:

- Lighting shall be switched off when not in use unless specifically needed for construction activities or for security and/or health and safety requirements;
- Glare (and the potential for complaints) caused by poorly directed security and floodlighting shall be minimised by ensuring that light fittings are horizontally mounted and directed inwards on-site;
- Temporary lighting fixtures are to be installed and designed to provide full cut-off or should be directionally shielded to ensure that artificial light is controlled and substantially confined to the defined area intended to be illuminated;
- Post-installation checks and monitoring of the lighting installations shall be undertaken to ensure that correct tilting angles and appropriate direction of lighting is achieved. This will allow adjustments to be made, where practicable, should undue light spill or glare be identified;
- Wherever possible, lighting shall be located and directed so that it does not cause unnecessary intrusion to adjacent buildings, particularly the residents of the properties at Padeswood Drive;
- The construction areas close to walkways or roadways shall be lit in an appropriate way to minimise glare and shall be clearly defined at all times to ensure the safety of motorists, cyclists, pedestrians. This will also assist in defining the limits of the construction area for motorists, cyclists and pedestrians;
- Temporary walkways, roads or parking areas shall be illuminated in accordance with current guidance stipulated in the current Institute of Lighting Guidance Notes;
- Care should be taken to avoid casting shadows from hoarding on the surrounding and adjacent footpaths and roads;
- Light spillage shall be reduced by directing any construction lighting below the horizontal plane, at an angle of less than 70 degrees away from features that offer suitable bat roosting potential; and
- There may be temporary high mast construction lighting in the car park and Proposed Development but the intent would be to switch off overnight.

4.6.2 In general, artificial light creates a barrier to bats, and other crepuscular species, so the use of artificial lighting during construction should be avoided wherever possible. Some works may occur at night due to necessity. Where lighting would be required, directional lighting (i.e., lighting which only illuminates work areas and not nearby habitat features) should be used to prevent overspill. This can be achieved

by the design of the luminaire and by using accessories such as hoods, cowls, louvers, and shields to direct the light to the intended areas only.

4.7 Water Pollution

4.7.1 Mud, silt and water pollution have the potential to cause nuisance and in some cases complaints and statutory nuisance and therefore must be effectively managed. The following processes and procedures shall be implemented to control potential mud/silt issues during the construction phase:

- Surface water and drains must be protected from silt run-off: use Gully Guards to protect drains and use straw bales, gravel traps or silt fencing to protect surface waters;
- All silt protection measures must be inspected frequently and maintained throughout the works;
- Stockpiles of contaminated material must be situated on an impermeable surface at least 10m from any surface waters or drains, and run-off collected within a bund;
- Tracking or washing out next to drains/surface waters must be avoided;
- When dewatering, any pump shall be switched off before removing the last portion of water and suspended solids will be allowed to settle out before discharging;
- All drains located adjacent or near to generators to be covered with Gully Guards;
- Potentially contaminated water must be tested before dewatering. Contaminated water must be treated or discharged off-site;
- Road sweepers shall be utilised where necessary;
- Silty water and associated run-off to surface water and drains must be avoided: minimise any areas of soil stripping and stockpiling, control water volumes used to suppress dust, batter/sheet stockpiles where required; and
- If a discharge consent is required, then all conditions within the consent must be understood before commencement of dewatering.

4.8 Noise

4.8.1 Best practicable means (BPM) as defined by the Control of Pollution Act 1974 will be implemented which will serve to minimise the noise and vibration impacts at receptors in the vicinity of the construction and decommissioning phase works. The BPM measures that would typically be implemented are listed below which would

be briefed to all relevant parties via site inductions, toolbox talks and at start of shift briefings:

- Where practicable, temporary enclosures should be used to screen all static or semi-static plant from noise sensitive receptor locations;
- Drop heights of materials should minimised i.e. lorry with lifting boom or dumper carefully depositing materials;
- Operators of moving plant to be briefed on a regular basis with an emphasis on the importance of noise mitigation, and avoiding movements over irregular surfaces (which tends to create more noise/vibration emissions);
- At all times, workers' shouting or raised voices to be kept to a minimum;
- All plant, equipment and noise control measures applied to plant and equipment should be maintained in good and efficient working order and operated such that noise and vibration emissions are minimised as far as reasonably practicable. Any plant, equipment or items fitted with noise control equipment found to be defective will not be operated until repaired;
- Machines in intermittent use should be shut down or throttled down to a minimum during periods between works;
- As far as is reasonably practicable, the location and orientation of semi-static equipment should be chosen to minimise the noise impact on sensitive receptors;
- All personnel on-site should undergo site specific inductions and briefings. Where relevant, specific noise and vibration control measures should be incorporated into the contractor's method statements;

4.9 Air Quality

4.9.1 Air quality specific mitigation measures has been detailed in **Appendix B, Volume 4, Technical Appendix 6.1.** The measures outlined below can be divided into two categories: general measures which are applicable to all sites and measures specific to demolition, earthworks, construction and trackout.

4.9.2 As detailed in **Volume 4, Technical Appendix 6.1**, 'medium risk' site mitigation measures have been applied, as determined by the dust risk assessment. There are two types of mitigation measure – 'highly recommended' and 'desirable'. Desirable measures are presented in italics.

General Measures

Site Management

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on-site;
- Develop a dust management plan;
- Display the name and contact details of person(s) accountable for air quality pollutant emissions and dust issues on Site;
- Display the head or regional office contact information;

- Record and respond to all dust and air quality pollutant emissions complaints;
- Make a complaints log available to Flintshire County Council when requested;
- Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the local authority when requested;
- Increase the frequency of site inspections by those accountable for dust and air quality pollutant emissions issues when activities with a high potential to produce dust and emissions and dust are being carried out, and during prolonged dry or windy conditions; and
- Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the Site, and the action taken to resolve the situation is recorded in the log book.

Preparing and Maintaining the Site

- Plan site layout: machinery and dust causing activities should be located away from receptors;
- Erect solid screens or barriers around dust activities that are, at least, as high as any stockpiles on-site;
- Fully enclosure site or specific operations where there is a high potential for dust production and the Site is active for an extensive period;
- *Install green walls, screens or other green infrastructure to minimise the impact of dust and pollution;*
- Avoid site runoff of water or mud;
- Keep site fencing, barriers and scaffolding clean using wet methods;
- Remove materials from Site as soon as possible;
- Cover, seed or fence stockpiles to prevent wind whipping;
- *Carry out regular dust soiling checks of buildings within 100m of Site boundary and cleaning to be provided if necessary;*
- Agree monitoring locations with Flintshire County Council;
- Where possible, commence baseline monitoring at least three months before phase begins; and
- Put in place real-time dust and air quality pollutant monitors across the Site and ensure they are checked regularly.

Operating Vehicles/Machinery and Sustainable Travel

- Ensure all vehicles switch off engines when stationary, avoiding idling;
- Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where possible;
- *Impose and signpost a maximum-speed-limit of 10mph on surfaced haul routes and work areas;*
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials; and
- Implement the Travel Plan (**Volume 4, Technical Appendix 11.2**) that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

Operations

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
- Ensure an adequate water supply on the Site for effective dust/particulate matter mitigation (using recycled water where possible);
- Use enclosed chutes, conveyors and covered skips;
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate; and
- Ensure equipment is readily available on-site to lean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Measures specific to demolition

- *Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust);*
- Ensure water suppression is used during demolition operations;
- Avoid explosive blasting, using appropriate manual or mechanical alternatives; and
- Bag and remove any biological debris or dampen down such material before demolition.

Measures specific to earthworks

- Has been assessed as low risk, no specific mitigation is required.

Measures specific to construction

- *Avoid scabbling (roughening of concrete surfaces) if possible; and*
- *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 additional control measures are in place.*

Measures specific to trackout

- *Regularly use a water-assisted dust sweeper on the access and local roads, as necessary, to remove any material tracked out of the Site;*
- *Avoid any dry sweeping of large areas;*
- *Ensure vehicles entering and leaving sites are securely covered to prevent escape of materials during transport;* and
- *Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the Site where reasonably practicable).*

4.10 Biodiversity

Proposed specific mitigation measures

4.10.1 Secondary and tertiary mitigation measures proposed in relation to biodiversity are detailed in **Table 4.1** and should be read in conjunction with the Habitat Creation and Management Plan (HCMP). Submitted as part of this DNS application, the HCMP provides details for the creation of the proposed new habitat areas and long-term management/monitoring. Habitat loss will be compensated through the creation and enhancement of 7.69ha of habitat:

- Aquatic habitat will be created in the form of four new ponds;
- Creation of broadleaved woodland; and
- Enhancement of semi-improved agricultural grassland.

Table 4.1 Proposed Biodiversity Mitigation Measures

Receptor	Secondary and Tertiary Mitigation
Habitats	
Broadleaved and mixed plantation woodland	Mitigation measures for the retained areas will be controlled through implementation of the HCMP and include: • Fencing will be designed and installed around the perimeters of the adjacent woodland to prevent incursion of vehicles and personnel into this area. Fencing will be left in place throughout the construction phase; and • Night-time lighting during construction phases should be undertaken in accordance with a lighting management plan to avoid ecologically sensitive areas. This will reduce the impact on nocturnal animals. Habitat loss will be compensated through the creation of new broadleaved woodland. The HCMP provides management and monitoring prescriptions for the new broadleaved woodland area to ensure it becomes established.
Dense and scattered scrub	Mitigation measures for the retained areas will be controlled through implementation of the HCMP which includes measures to limit non-chemical pollution such as dust suppression and removal of litter generated during construction. Habitat loss will be compensated with the creation of three new habitat areas (as provided in **Volume 4, Technical Appendix 9.4**) which will contain broadleaved woodland, rough neutral grassland, enhanced hedgerows and four new ponds designed for great crested newts, with associated hibernacula and refugia. These habitats will be managed and monitored through the HCMP.
Broadleaved trees	Mitigation measures for the retained areas will be controlled through implementation of an HCMP example measures to limit non-chemical pollution such as dust suppression and removal of

Receptor	Secondary and Tertiary Mitigation
(scatted and lines of)	litter generated during construction such as the measures detailed in **Section 4**. Measures implemented to mitigate impacts on woodland habitat will also benefit broadleaved trees. Habitat loss will be compensated with the creation of new habitat areas (as provided in **Volume 4, Technical Appendix 9.4**) which will contain broadleaved woodland, rough neutral grassland, enhanced hedgerows and four new ponds designed for great crested newts, with associated hibernacula and refugia. These habitats will be managed and monitored through the HCMP.
Semi-improved grassland	Mitigation measures for the retained areas will be controlled through implementation of an HCMP example measures to limit non-chemical pollution such as dust suppression and removal of litter generated during construction such as the measures detailed in **Section 4**. A new area of rough, semi-improved grassland will be enhanced at the north east corner of the Site, which exceeds the area of that which will be lost as a result of the Proposed Development. This will be of greater value to wildlife once it has established as it will be managed through the HCMP.
Tall ruderal	Mitigation measures for the retained areas will be controlled through implementation of an HCMP example measures to limit non-chemical pollution such as dust suppression and removal of litter generated during construction such as the measures detailed in **Section 4**. Measures implemented to mitigate impacts on woodland habitat will also benefit tall ruderal habitat. Habitat loss will be compensated with the creation of new habitat areas (as provided in **Volume 4, Technical Appendix 9.4**) which will contain broadleaved woodland, rough neutral grassland, enhanced hedgerows and four new ponds designed for great crested newts, with associated hibernacula and refugia. These habitats will be managed and monitored through the HCMP.
Standing water – ditches	Mitigation measures for the retained areas will be controlled through implementation of an HCMP example measures to limit non-chemical pollution such as dust suppression, removal of litter generated during construction and pollution prevention measures such as the measures detailed in **Section 4.**
Running water – streams	Mitigation measures for the retained areas will be controlled through implementation of an HCMP example measures to limit non-chemical pollution such as dust suppression, removal of litter generated during construction and pollution prevention measures such as the measures detailed in **Section 4.**
Protected species	

Receptor	Secondary and Tertiary Mitigation
Great crested newts	The successful implementation of mitigation, under an appropriate European protected species mitigation licence with respect to great crested newt, will reduce the likelihood of direct mortality impacts. Mitigation techniques such as: • A great crested newt translocation, phased vegetation clearance, installing exclusion fencing, site supervision and habitat restoration would safeguard great crested newts and prevent the incidental injury or mortality of animals; • The retained ponds will be protected through fencing of the retained area during construction, and work to convert Ponds 10 and Pond 11 to a stormwater holding pond will be supervised; • Appointment of an ecological clerk of works to oversee ecologically sensitive activities during construction; • An HCMP will include measures to protect the retained ponds, e.g. by limiting non-chemical pollution through measures to suppress dust or to remove litter generated during construction such as the measures detailed in **Section 4**. • Habitat creation that is suitable for great crested newts will include ponds, neutral grassland (where left as rough grassland), and broadleaved woodland. After these habitats have established, they will be of greater benefit to some species, including great crested newts; and • Night-time lighting during construction phases should be undertaken in accordance with a lighting management plan to avoid ecologically sensitive areas adjacent to the working areas. This will reduce the impact on nocturnal animals on the surrounding environment. Noise mitigation measures are detailed in **Section 4.**
Bats – roosting (buildings)	Mitigation for roosting bats in confirmed roosts will be detailed in a mitigation licence acquired from Natural Resources Wales. Works will need to be undertaken under a precautionary working method statement. This will ensure no direct bat mortality occurs in the unlikely event that a bat is found roosting in the buildings. The reasonable avoidance measures will also apply to buildings with hibernation potential, and to buildings which could not be inspected internally, on a precautionary basis. As well as this, night-time lighting during construction phases should be undertaken in accordance with a lighting management plan to avoid ecologically sensitive areas adjacent to the working areas. This will reduce the impact on bats within the surrounding environment. The Site will be enhanced post construction through the installation of new roosting opportunities (e.g. bat boxes) for bats across the Proposed Development, including the new habitat areas, with emphasis on incorporating roost sites in building design. Bat box details are incorporated into the HCMP.

Receptor	Secondary and Tertiary Mitigation
Bats – roosting (trees)	Mitigation for roosting bats in confirmed roosts will be detailed in a mitigation licence acquired from Natural Resources Wales. Also, as advised in the Bat Conservation Trust Good Practice Guidelines further bat surveys of low potential trees are not required. For all trees with high, moderate and low potential, precautionary measures (e.g. inspection of the potential roosting features prior to felling and a soft fell of the tree) will be undertaken during felling or pruning activities. The inspection will be undertaken by a licensed ecologist, features will be inspected with an endoscope, where possible. If an endoscopic examination is not possible the tree will be felled in sections; any sections containing features suitable for bats will be lowered and examined at ground level. If considered appropriate by the ecologist the tree section will be left at ground level on the ground with the potential roost feature facing up for 24 hours so that any bats not found during the endoscopic examination can leave of their accord. If bats are found at any stage, the works will stop and Natural Resources Wales will be consulted; if necessary a mitigation licence will be applied for. Mitigation measure for indirect impacts on adjacent trees will be controlled through implementation of an HCMP to include: • Night-time lighting during construction phases should be undertaken in accordance with a lighting management plan to avoid ecologically sensitive areas. This will reduce the impact on nocturnal animals on the surrounding environment. Noise mitigation measures are detailed in **Section 4**; and • The Site will be enhanced post-construction through the installation of new roosting opportunities (e.g. bat boxes) for bats across the Proposed Development, including within new habitat areas. Bat box details will be incorporated into the HCMP.
Badgers	If the sett is found to be inactive after monitoring, the sett will be closed (filled in/collapsed/meshed over) before works commence. If the sett is confirmed to be active, detailed mitigation will be implemented under a licence acquired from Natural Resources Wales. Badgers will be excluded from the sett between 01 July and 30 November (inclusive) to enable works within 30m. This will involve placing one-way gates over sett entrances, placing wiring over the ground to prevent the badgers digging back in and monitoring until no badger has been shown to enter the sett for 21 days. If badgers dig back into the sett the 21 days of monitoring will be restarted. If the sett is considered to be a main sett, an artificial sett will be constructed. The artificial sett will be monitored and only when

Receptor	Secondary and Tertiary Mitigation
	evidence of badger usage has been observed will badgers be excluded from the existing main sett. A pre-construction badger survey will be undertaken within six months of the start of works to ensure no other setts have been established as they are a highly mobile and opportunistic species.

Biosecurity

4.10.2 In addition to the biodiversity specific mitigation measures outlined in **Section 4**, the following biosecurity measures are to be implemented:

- In the areas within the Site with freshwater bodies or channels, the transfer of amphibian and fish diseases as well as invasive non-native species should be minimised by undertaking cleaning and disinfection of equipment. All debris, plant fragments and mud should first be scrubbed off footwear and rinsed with water;
- Disinfection should comprise soaking in a bleach solution (1 measure of household bleach to 9 measures of water) for 15 minutes or using Virkon solution (1mg/ml) for 1 minute. Fabrics can be washed on a 40° C cycle (with detergent, ensuring sufficient rinsing);
- Nets should be boiled for 10 minutes or, if the fabric allows, disinfected with spray bleach and rinsed thoroughly. Rinse with clean water and if possible, allow drying before next use. Keep field gear (e.g. traps, net frames, buckets) inside plastic bags during transit and storage to reduce the likelihood of transmitting diseases; and
- All used disinfectants should be disposed of appropriately. Areas within the Site considered to be 'infected' should be surveyed/visited last during any programme of work.

4.11 Landscape

4.11.1 Consideration has been given to the location of the compounds during construction to minimise the visual effects as far as practicable.

4.11.2 A Landscape and Habitat Mitigation Strategic Proposal (LHMSP) has been developed for the Site. This strategy can be found in **Volume 4, Technical Appendix 9.4,** and it is to be read in conjunction with this OCEMP.

4.11.3 Existing habitats and vegetation will be retained as much as practicable and will be managed under the existing management plan. The LHMSP details potential landscape enhancements including the addition of planning along the western

boundary of the Site and the construction of a permanent 3m high bund which will be planted with woodland species for screening purposes.

4.12 Traffic Management

4.12.1 A Transport Statement (refer to **Volume 4, Technical Appendix 11.1**) has been produced to demonstrate to the Local Highway Authority that the existing access to the Site is satisfactory for the anticipated construction traffic associated with the Proposed Development. Construction traffic will utilise the existing site access off A5118. There will be alteration to the entrance configuration (i.e. changes to the kerb lines and islands) to allow for abnormal loads.

4.12.2 A total of 436 parking spaces will be provided on-site to accommodate construction vehicles, contractor vehicles, staff and visitors during the construction period and beyond into the operation of the Proposed Development. In addition, land to the east of the carpark will be utilised for construction parking and as a construction laydown area. This area will provide ample room for different sized vehicles to turnaround and park onsite.

4.12.3 A Travel Plan (refer to **Volume 4, Technical Appendix 11.2**) has been prepared and a Construction Traffic Management Plan (CTMP) is to be developed to encourage sustainable travel choices and manage traffic during construction, respectively. The CTMP will detail suitable routes for heavy goods vehicles and the management of vehicle movements to avoid peak traffic periods. Through the implementation of the Travel Plan and a CTMP, it has been assessed that traffic during construction will not be significant on the local roading network.

4.12.4 The contractor shall provide for the safe and secure management and control of pedestrians and vehicular movements, both on and off-site, to ensure the safety of all members of the general public and workforce at all times throughout the construction phase in accordance with all requisite Acts and Regulations, including, but not limited to:

- Health and Safety at Work etc. Act 1974[6];
- Management of Health and Safety at Work Regulations 1999[7];
- Construction (Design and Management) Regulations 2007[8];
- Supply of Machinery (Safety) Regulations 1992[9]; and
- Provision and Use of Work Equipment Regulations 1998[10].

4.12.5 The contractor shall be responsible for:

- Promotion, management and control of such general provisions and measures for traffic management and control to be implemented by all

[6] https://www.legislation.gov.uk/ukpga/1974/37/data.pdf
[7] https://www.legislation.gov.uk/uksi/1999/3242/made/data.pdf
[8] https://www.legislation.gov.uk/uksi/2007/320/made/data.pdf
[9] https://www.legislation.gov.uk/uksi/1992/3073/made/data.pdf
[10] https://www.legislation.gov.uk/uksi/1998/2306/made/data.pdf

contractors and sub-contractors throughout the extent and duration of the construction;

- On Site provision for access roads and pedestrian footways, with controlled access from the public domain for pedestrians and vehicles, on-site parking provisions, standing, lay-down and unloading facilities for delivery vehicles, and on-site compound, welfare facilities and material holding areas for use by all contractors and sub-contractors; and
- Ensuring that the on-site provisions are controlled, managed and shall be safe at all times through the provision of planned and informed procedures and segregation between vehicular and pedestrian traffic.

4.13 Waste Management

4.13.1 The contractor will apply the principles of the waste hierarchy (prevent, reuse, recycle, recovery, disposal) to waste management of the Site.

4.13.2 The Proposed Development shall promote the re-use of excavated materials through optimisation of cut and fill operations in order to improve the sustainable and cost-effective development of land, as per the Definition of Waste: Development Industry Code of Practice (CLAIRE, 2011) (DoWCoP)[11]. In many instances the DoWCoP can provide an alternative to Environmental Permits or Waste Exemptions when seeking to reuse excavated materials.

4.13.3 An outline Site Waste Management Plan (OSWMP; refer to **Volume 4, Technical Appendix 14.1**) has been prepared and will be finalised following the appointment of the contractor. The OSWMP seeks to apply the principles of the waste hierarchy to minimise the generation of waste during demolition, site preparation and construction. The OSWMP includes the following waste management measures:

- A waste collection area shall be set up before Site works start. This area shall be as close to the Site compound as possible with adequate hardstanding for the waste containers and unobstructed access for telehandler and waste removal vehicles;
- Front-end loader or rear-end loader skips shall be provided to segregate wastes including timber and metal. A designated area shall be provided for inert wastes, e.g. bricks, clay pipes and roof tiles. A designated container(s) shall be provided for hazardous wastes, which and must be clearly labelled;
- Wastes shall be collected by a licenced waste carrier. A copy of all Waste 'Duty of Care' documentation shall be held on Site;
- Duty of Care documentation must be completed for all waste transfers and copies provided to the Applicant every week. Waste transfer notes or hazardous waste consignment notes and Duty of Care procedures are to be audited regularly (monthly as a minimum);

[11] https://www.claire.co.uk/component/phocadownload/category/8-initiatives?download=212:definition-of-waste-development-industry-code-of-practice

- The Site Waste Management Plan shall be made available on Site and its requirements understood by all contractors and operatives before starting work on Site;
- Road sweepers shall be deployed as necessary. All road sweepings must be removed from Site accompanied with a completed waste transfer note from the driver. If road sweepings are inadvertently discharged on Site, these should be disposed of appropriately;
- All waste incidents shall be reported immediately to the site manager; and
- Soil and recycled aggregate transfers shall be carried out in accordance with an approved Materials Management Plan and all transfer tickets must be retained on Site.

4.13.4 Wherever possible, the following waste streams will be diverted from landfill:

- The Site works shall be designed to retain as much soil on Site as possible whilst maintaining protection of human health and the environment;
- All timber is to be segregated on Site and collected by a waste handing company (or similar outlet) for recycling;
- All metal is to be segregated on Site and sent for recycling;
- All mixed waste removed from Site shall be taken to a material recycling facility for further segregation to maximise recycling and recovery;
- All hazardous waste shall be segregated from all other wastes and clearly labelled; and
- All other Site waste shall be segregated on Site.

Good housekeeping

4.13.5 In addition to the waste management measures detailed above the following housekeeping measures will be implemented:

- Maintain good housekeeping and Site working practices to control litter, insects or vermin. E.g. dispose of food into appropriate receptacles; and
- All site gates shall be kept locked/closed out of working hours and kept closed and/or manned during working hours.

4.14 Soil Management

4.14.1 An outline Soil Resource Management Plan (OSRMP; submitted as part of the DNS application) has been produced for the Proposed Development and should be used in conjunction with this OCEMP.

4.14.2 The Soil Handling Units plan (**Appendix 2** of the **OSRMP**) shows the units of soil which are to be stripped and stored in bunds separately during the commissioning phase. Soil stripping will occur mainly in the location of the proposed compounds, inverters, substations and on site access routes. The OSRMP details the key

measures/principles which are to be in place prior to the stripping of any soil, which is summarised below:

- The site layout should accommodate designated soil storage areas;
- The volume of soil to be stripped and storage requirements calculated;
- Best practice is to use an excavator and dump truck to strip and move soil;
- All machinery should operate and travel on subsoil or defined routes;
- Matting may be required on defined routes to contain and reduce soil compaction;
- Vegetation on the areas to be disturbed e.g. compounds, access road etc. should be cut short to less than 100mm as necessary, no more than two weeks before stripping;
- A record of any soil placed in storage and a plan of the storage bunds should be maintained; and
- The topsoil should be stripped to a depth of approximately 350mm for Unit 1, a depth of 150mm for Unit 2 and a depth of 280mm for Unit 3; to minimise the risk of structural damage to the soil, the soil should only be handled when in a dry and friable condition.

4.14.3 The following elements should be considered on each occasion that soil handling is proposed:

- Topsoil stripping will only occur when the soils are as dry as reasonably practicable (normally below the plastic limit and not normally within 24 hours of significant rainfall (i.e. >10mm in a 24-hour period);
- During light rainfall events local level decisions to proceed or stop should be based on the current wetness state of the soils being handled;
- There should be no surface water standing in the area to be stripped;
- The ground should be sufficiently dry for traffic to travel across without forming ruts; and
- Soil should not be moved when the ground is covered by snow or is frozen.

4.14.4 To determine the suitability of the soil for handling the following in-field soil moisture test should be undertaken to assess the moisture content of the soil prior to working. The method involved rolling a ball of soil into intact threads (3mm diameter), which, if possible, indicate the soils are in plastic and wet condition. A visual examination of the soil taken initially and then an assessment of the soil consistency (the cohesion and adhesion of the soil) as set out in the OSRMP.

4.14.5 Topsoil from different soil units should be stored in separate soil bunds and placed on soil of a similar soil unit. The following aspects will be considered when planning soil storage to keep soil aerated and to reduce the risk of erosion, runoff and ponding:

- The soil bund should be no higher than 3m for topsoil;

- The side slopes should be between 25° and 45°;
- The bund should be shaped to shed water;
- Be located on dry level ground;
- Not disrupt any natural surface drainage;
- The bund should be seeded with a suitable grass mix;
- The bund should be treated for weeds; and
- Grass on the bund should be cut at least twice a year.

4.14.6 Records should be kept of soil placed into storage. Each bund should be identified with the soil volume and soil unit. The following soil storage elements should also be implemented:

- Topsoil and subsoil of different soil units should be stored in separate soil stores;
- Topsoil should be stored in bunds up to 3m high and lightly formed to consolidate the surface, to shed water. Any subsoil stripped should be stored in bunders up to 5m high;
- Topsoil should be stored on topsoil and subsoil should be stored on subsoil;
- It is recommended that soils stored be placed close to the original location of the soil to be stored, in defined areas for screening and final restoration of land to be restored to agricultural use. Surplus topsoil should be put to a beneficial use off site to ensure its many soil functions, such as a carbon and water storage are retained;
- Soil stores should be set back by more than 0.5m from any excavation to prevent soils slumping into the cut;
- A record should be kept of any soils which are placed in store. All bunds should be labelled with their land use at the time of stripping, volume and soil type (e.g. pasture, ***m^3, Unit 1 topsoil);
- All bunds which will be in place for more than six months should be sown with a low maintenance grass seed mix at a rate of 5g/m^2 ; and
- All soil bunds should be inspected in spring to ensure that the grass cover is intact and to decide if an herbicide is required to control invasive weeks. The species present will determine the most appropriate herbicide.

5 EMERGENCY PREPAREDNESS AND INCIDENT RESPONSE

5.1 Emergency Preparedness

5.1.1 The following sub-sections detail the procedures to be undertaken if there was an emergency onsite (i.e. a hydrocarbon/chemical spill, fire, flooding or extreme heat) and the key emergency contact details.

Spill kits

5.1.2 Spill kits capable of dealing with hydrocarbon and chemical spills shall be available at all worksites. Each storage location shall be clearly visible to the workforce, for instance by deploying clear signage.

5.1.3 If a construction compound, fuel storage point or COSHH store is provided then additional spill kits will be available at each separate location.

5.1.4 The spill kit contents shall include absorbent pads, absorbent booms, absorbent granules and hazardous waste disposal sacks as a minimum. Regular checks of the spill kits shall be completed to ensure they remain adequately stocked to deal with environmental incidents.

5.1.5 Spill drills shall be performed periodically to confirm that the workforce can effectively contain and clear up potentially polluting spillages. All drills will be documented and details kept on record for the duration of the works.

Fire prevention

5.1.6 Regular fire drills will be carried out on Site. Means to raise the alarm in the event of a fire shall be available at the points of work. An assembly point shall be designated a safe distance from the active works locations and will be communicated to all members of the workforce before works commence. The workforce shall assemble at the point for a roll-call and to receive further instructions. All individuals at the worksite, including visitors, will be obliged to immediately sign in on arrival and sign out on departure.

Extreme weather

5.1.7 The site manager shall register to receive Met Office weather warnings. All warnings issued by the Met Office with the potential to impact upon the works shall be communicated by the site manager to the workforce in a timely manner so that

measures can be implemented where necessary. In the absence of the site manager the environmental manager shall also receive and act upon all alerts.

5.1.8 Each contractor shall maintain provisions to deal with extreme hot weather events. Measures shall include provision of safe drinking water and adequate shade.

Emergency Contacts

5.1.9 In the event of an emergency occurrence at the Site, the Applicant and its contractors shall determine the relevant statutory and regulatory bodies that must be notified (**Table 5.1**). Notification shall be in accordance with the measures outlined in **Section 5.2.1**.

Table 5.1 List of emergency contacts

Emergency Contacts	
Contact	**Contact details**
Project Manager TBC	TBC
Project Director TBC	TBC
Natural Resource Wales Number	0300 065 3000
Health and Safety Executive (HSE Construction)	01519 229235
Flintshire County Council	01352 702121
Major Spill Emergency Response	TBC
Fire	999/112
Police	999/112
Ambulance	999/112

5.2 Incident Reporting and Investigation

Reporting

5.2.1 All incidents, including near misses, shall be classified according to the categories outlined in **Table 5.2.** All categories of environmental incident shall be reported by the contractor to the Applicant as outlined in **Table 5.2**.

Table 5.2 Incident classification

Incident Classification	Definition
Near Miss	An event, controlled through implementation of an effective incident control measure (e.g. drip tray used, effective use of noise barrier).
Minor Environmental Incident	Incidents that have caused minor harm or damage to the environment e.g. • A minor fuel spill below 20 litres onto ground which is immediately cleared; • A minor spill of a chemical **not** classified as presenting an ecotoxic risk; • Exceeding noise levels; • Silt runoff from Site which does **not** enter into a surface water feature; and • Excess dust emissions.
Major Environmental Incident	Incidents that have caused or may cause significant harm or damage to the environment e.g. • E minor fuel spill which impacts a sensitive land feature, a water body, or drains; • A major fuel spillage over 20 litres; • Any spillage of a chemical which is classified as presenting an ecotoxic risk; • Silt runoff from Site which enters a water feature; and • Receipt of a nuisance complaint.

5.2.2 Minor incidents and near misses must be reported to the Applicant within 24 hours. Major incidents must be reported to the Applicant as soon as reasonably practicable.

5.2.3 The contractor, after informing the Applicant, shall report all environmental incidents that are required to be reported to Natural Resources Wales and/or to any other

relevant statutory or regulatory bodies. Emergency contact details for the Proposed Development are outlined in **Table 5.1**.

Investigation

5.2.4 Reporting of an incident to the Applicant shall where necessary commence the incident investigation which shall be jointly conducted between the Applicant and its contractor(s).

5.2.5 The contractor shall prepare an investigation report for all environmental incidents. An investigation report will include:

- Summary of the environmental incident, describing the:
  - Nature of the incident;
  - Details of any pollutant released including the type and quantity of pollutant released; and
  - Location for the incident (e.g. grid reference);
- Receptors that were or could have been impacted;
- An analysis of what led to the incident occurring;
- Summary of immediate actions taken to mitigate the incident;
- Summary of any remedial action required; and
- Lessons learned and future measures or actions to be implemented.

5.2.6 The Applicant will verify the incident investigation and agree with its contractors any further actions which are to be implemented to prevent reoccurrences of a comparable incident. A timeline for the implementation of all actions shall be established and the contractors shall provide details of when they have been implemented.

5.2.7 An incident investigation shall be complete when all required details have been recorded on file.

5.3 Incident Response

5.3.1 This section consists of standard incident response procedures, intended to provide guidance for the containment and limitation of adverse effects. All pollution incidents should be managed through the STOP - CONTAIN - NOTIFY concept.

5.3.2 As soon as an incident is identified, the first action should be to **STOP** and prevent further discharge to drainage/river/ground.

5.3.3 **CONTAIN** may constitute control of discharge in the event of a spill, or cessation of works if it is the works that are resulting in the incident, e.g. halting excavations until silt runoff is contained. It is recognised that due to personal health and safety risks it

may not always be safe to stop the source of the spill, for instance if a significant volume of an unidentified substance has been released.

5.3.4 **NOTIFICATION** should take place as soon as practicable, and frequently can take place while further release is being stopped or while a spill is being contained. The emergency contact numbers outlined in **Table 5.1** should be used.

5.3.5 **Appendix E** consists of standard incident response procedures, intended to provide guidance for the containment and limitation of adverse effects.

Oil, fuel or chemical spill to ground

- Wear protective clothing,
- Preventing further release at source e.g. switch off tap/valve, correct leaking drum and make the area safe;
- If the spill is migrating, create a temporary bund to prevent further spread by using spill kit materials/sandbags;
- If drains or field ditches are located nearby, install drain seals/deploy additional spill kit materials to prevent the spill discharging to the drain or ditch;
- Apply absorbent granules or pads (available from spill kit) to the affected area;
- The contractor will notify Natural Resources Wales regarding the nature and scale of incident. The following information should be included in the notification:
    - Time of discharge;
    - Type/quantity of material discharged;
    - Location of discharge; and
    - Site contact details.
- The contractor will notify the Applicant of the incident and communicate the information provided to Natural Resources Wales;
- The Applicant will notify PEDW regarding the nature and scale of the incident as per the requirements of the Environmental Damage (Wales) Regulations 2015[12]; and
- Containment measures should remain in place until the nature and extent of the contamination can be assessed and a remediation strategy is prepared.

[12] https://www.legislation.gov.uk/wsi/2015/1394/contents/made

5.3.6 All impacted materials shall be disposed of in accordance with relevant legislative and regulatory requirements and the Duty of Care requirements outlined in the Code of Construction Practice.

Oil, fuel or chemical spill to surface water feature

- Wear protective clothing;
- Preventing further release at source e.g. switch off tap/valve, correct leaking drum and make safe the area;
- If source not readily identifiable, contain first, then identify and prevent further release at source;
- Immediately deploy appropriate sized boom from nearest spill kit across affected surface water feature. Use stakes to attach it to the sides of the surface water feature. Tie booms together to increase length if required;
- Supplement with additional booms across the surface water feature, as required, to contain any migration of the spill not halted by the first installation;
- The contractor shall notify Natural Resources Wales regarding the nature and scale of incident. The following information should be included in the notification:
    - Time of discharge;
    - Type/quantity of material discharged to surface water feature;
    - Location of discharge; and
    - Site contact details.
- The Contractor shall notify the Applicant of the incident and communicate the information provided to Natural Resources Wales;
- The Applicant will notify PEDW regarding the nature and scale of the incident as per the requirements of the Environmental Damage (Wales) Regulations 2015;
- Containment measures should remain in place until the nature and extent of the contamination can be assessed and a remediation strategy is prepared; and
- All impacted materials will be disposed of in accordance with relevant legislative and regulatory requirements and relevant Duty of Care requirements.

Oil, fuel or chemical spill to drainage system

- Wearing protective clothing, prevent further release at source e.g. switch off tap/valve, correct leaking drum and make safe the area;
- If source is not readily identifiable, contain the visible pollutant first, then identify and prevent further release at source;
- Immediately deploy appropriate drain cover(s) to affected gullies;
- Supplement with booms around the gully to contain any migration of the spill;

- The contractor shall notify Natural Resources Wales and the relevant water company regarding the nature and scale of incident. The following information should be included in the notification:
    - Time of discharge;
    - Type/quantity of material discharged to the drain;
    - Location of discharge, specifically which drain; and
    - Site contact details.
- The contractor shall notify the Applicant of the incident and communicate the information provided to Natural Resources Wales;
- The Applicant will notify PEDW regarding the nature and scale of the incident as per the requirements of the Environmental Damage (Wales) Regulations 2015;
- Containment measures should remain in place until the nature and extent of the contamination can be assessed and a remediation strategy is prepared; and
- All impacted materials shall be disposed of in accordance with relevant legislative and regulatory requirements and relevant Duty of Care requirements.

Discovery of unexpected contamination

- On the discovery of unexpected contamination, the contractor will immediately halt works in the area;
- If impacted materials have already been removed they shall be returned to the excavation or placed on to a membrane, e.g. terram, to prevent migration of the contaminant to another area;
- Contractor to report the situation to the Applicant;
- Arrangements will be made between the contractor and the Applicant for samples of the contamination to be collected and tested on fast turnaround;
- Contractor to only continue with works in the area once the test results have confirmed the contaminant and a safe means of working has been established;
- The contractor shall be free to continue works in areas unaffected by the contamination, BUT the contractor will not speculatively continue to excavate material to find the extent of the contamination without supervision from a geo-environmental engineer; and
- All impacted materials will be disposed of in accordance with relevant legislative and regulatory requirements as well as relevant Duty of Care requirements.

Explosion/fire procedure

5.3.7 Explosion/fire incidents should also be dealt with through health and safety procedures. In the event that a fire is detected or an explosion occurs:

- Notify the emergency services and evacuate the area;
- Attempt to tackle the fire with site equipment only when it is safe to do so;
- Ensure that pollution of nearby water bodies including surface water drainage from fire control water or other substances is minimised. Where possible and safe to do so, any site drainage systems should be protected through the deployment of drain seals/spill kit materials to ensure any firefighting waters are captured and can be disposed of appropriately; and
- At a time when it is acceptable to do so, Natural Resources Wales shall be notified regarding the nature and scale of incident. The following information should be included in the notification:
    - Nature of the incident;
    - Time and date of the incident;
    - Quantity of fire control water discharged to surface water feature/drainage, where relevant;
    - Location of discharge; and
    - Site contact details.

Silt

5.3.8 In the event of an unexpected discharge of silty water, then:

- Prevent further release at source e.g. cease dewatering the excavations;
- Contain silt and protect sensitive receptors from further discharge:
    - If a drain is located nearby, install drain seals or deploy spill kit materials to prevent discharge;
    - If silt flow is in the direction of surface water features deploy hay bales around surface the feature;
    - If silt is being generated by run-off from stockpiles deploy spill kit materials, silt fencing or move soil to form a bund at the base to prevent further silt laden run-off from the stockpile;
- If silt is discharged without prior approval Natural Resources Wales shall be notified. If the silt discharge enters the drainage system the relevant water company shall also be notified regarding the nature and scale of incident. The following information should be included in all notifications:
    - Time of discharge;
    - Type/quantity of material discharged;
    - Location of discharge, e.g. which drain or surface water feature; and
    - Site contact details.

Complaint over a nuisance

5.3.9 This procedure should be followed for all nuisance complaints including noise, dust and lighting:

- Immediately stop the activity leading to the complaint; or where not possible to entirely stop the activity reduce it to the lowest possible level e.g. shut off all non-essential plant;
- Remain polite and courteous. If able to resolve the issue through discussion with the complainant, then determine what action is needed and put it into practice;
- Record the details of the complainant including their name, contact details and address. Contractors shall report the details of the complaint and the complainant to the Applicant;
- The contractor and the Applicant will register the complaint on the Complaints Log; and
- The Applicant will act on the complaint and remedial actions will be put in place within 24 hours.

Contamination of or by waste materials

- Assess whether the area needs to be evacuated, such as if fumes are being given off;
- Assess whether the damage can be undone through segregation;
- Complete a risk assessment for the task including consideration of any COSHH risks;
- If it is safe to do so segregate the waste. If it is not safe to do so, then the full waste quantity is to be consigned as hazardous waste;
- Contractor to report the incident to the Applicant; and
- Waste to be collected from Site in accordance with normal practice.

Discovery of archaeological artefact or heritage feature

- Immediately stop works in the area of the artefact or feature;
- Ensure the area is isolated from interference by erecting fencing around the discovery. Prevent vehicles from navigating through this area;
- Provide a safe means for pedestrians; and if possible vehicles, to move around the isolated area;
- Contractor shall report the find to the Applicant;
- The Applicant is to arrange for the find to be assessed by a qualified heritage or archaeological specialist. The contractor is to prevent tampering with the find until it has been assessed; and
- Works to proceed in accordance with the recommendations given by the heritage or archaeological specialist.

Ecological discovery or damage

- Immediately stop works in the area;
- Contractor to immediately report the incident to the Applicant;
- Applicant to arrange for a qualified ecologist to assess the discovery or damage caused; and
- Works to proceed in accordance with the advice received from the ecologist.

Vandalism/theft procedure

5.3.10 Acts of theft and vandalism present the risk that damage may be caused to equipment containing hazardous substances that could cause pollution, or damage may be caused to measures which have been installed to prevent the release of pollution. On identifying an act of vandalism or theft:

- The contractor shall notify the Police of the incident;
- Inspect all fuel storage tanks/drums and equipment to ensure there has been no release of the fuel or other hazardous substances, e.g. hydraulic fluid;
- If a spill is identified follow the procedures for oil, fuel or chemical spills;
- Inspect pollution protection measures, e.g. drainage or silt protection, to ensure it has not been interfered with. Where it is possible, correct any issues identified without causing further release; and
- Inspect boundary of the Site to identify the access point if not immediately clear and secure the Site.

6 GENERAL ENVIRONMENTAL REQUIREMENTS

6.1 Roles and responsibility

6.1.1 The contractor shall make available sufficient time and resources for the effective management of environmental risks that could arise during construction work. This includes appointing adequately qualified personnel with knowledge and capability in the environmental management of construction site works. Persons having responsibility for environmental site management, and in particular any persons required to undertake and oversee response to any incidents with potential environmental consequences, shall be empowered to make decisions and take appropriate action necessary to avoid or mitigate adverse environmental effects, even when this may lead to delay and/or additional cost to the contractor.

Project roles

6.1.2 The Applicant's project team and all appointed contractors will be responsible for ensuring that the potential risks to the environment are adequately avoided or controlled by the application of measures as documented within this OCEMP, which shall be complied with throughout construction. The main organisations and persons involved in the construction phase works are set out in **Table 6.1.**

6.1.3 Where different contractor/sub-contractors are working on Site, the main tasks/activities that each will be undertaking can be described here:

- [Contractor 1]: [for example] site preparation, including vegetation removal and topsoil stripping; site fencing; installation of Site compounds and temporary accommodation and welfare facilities; main excavation works and formation of construction platforms; management of sub-contractors;
- [Contractor 2]: [for example] Construction of the CHP and PCCCC; and
- [Contractor 3]: [for example] provision of Site security team.

Table 6.1 Project roles and environmental responsibilities

RACI DETAILS – **R -** Responsible: The individual(s) who perform an activity responsible for action/implementation- although usually only one, Rs can be shared **A -** Accountable: the individual who is ultimately accountable including yes/no decision and power of veto – only one (A) can be assigned **C -** Consulted: the individual (s) to be consulted prior to a final decision being made or action taken – two-way communication **I –** Informed: the individual (s) who need to be informed after a decision is made or action is taken – one-way communication		Developer	Project Manager/Director	Site Manager/Sub-	Environmental Manager	All Site Staff/Contractors	Engineers/Foremen
Process Task							
Developing and maintaining the OCEMP		C	R	R	A	I	
Monitor environmental aspects through review of construction method statement, identify and control issues			R	I			
Monitoring construction works to ensure any necessary environmental issues and control measures are in place; ensuring they are effectively communicated and appropriate and implemented on Site				R	C		I
Ensuring the work is performed by training and qualified staff; and providing training where necessary			R	R	A		I
Ensuring that adequate resources are allocated for environmental management		I	C	R		I	
Ensuring that all relevant environmental documentation and information (including permissions, consents, permits and assessments) is communicated;		I	R	C		I	
Ensuring that environmental incidents and complaints are investigated, recorded and reported following the correct procedures and taking preventative action		C	C	C	R	C	I
Regular site inspections and maintaining a record of environmental performance; and reporting performance and monitoring environmental performance		I	A	C	R		
Following good practice and minimising impact of activities on the environment						R	
Understanding project environmental obligations and mitigation measures			A			I	R
Liaison with local authority, other statutory bodies, members of the public, press and the media			R		C		
Supporting all site staff with environmental management including reviewing and commenting on method statements and risk assessments					R		
Ensuring that the environmental policy of the Applicant is delivered			R	A	C	I	I
Providing information on waste management/reduction procedures to relevant staff				R		I	

6.2 Competence, Training and Awareness

6.2.1 The contractor shall ensure that appropriate training is delivered to all site operatives and only appropriately qualified sub-contractors are appointed.

6.2.2 Every member of the workforce shall be required to participate in a site induction prior to starting work on the Site. The level of induction training will depend upon the position and duties the person is to perform. The site induction will include:

- A brief overview of the works to be undertaken and any potential environmental aspects associated with the construction activities;
- A summary of the sensitive environmental receptors near the Site;
- An overview of the applicable environmental mitigation and pollution control measures; and
- An overview of the health & safety management measures in particular emergency response procedures required at the Site.

6.2.3 The Applicant will require its contractors to provide continuing training and awareness raising of the workforce. This shall be delivered in the form of Toolbox Talks tailored to the specific environmental mitigation measures required dependent on the work activities being undertaken and to raise awareness on environmental best practice.

6.2.4 Records of all inductions and Toolbox Talk deliveries shall be maintained at the Site office. Copies shall be made available to the Applicant on request.

Internal Communication

6.2.5 Environmental mitigation measures shall be incorporated into the RAMS prepared by the Applicant's contractors. All RAMS shall be communicated to the workforce by the site manager. The site manager, environmental manager and other relevant team members shall meet weekly to review the status of environmental aspects including (but not limited to):

- Works activities underway and planned;
- Mitigation measures required to be implemented;
- Results of weekly inspections and any audit results/feedback;
- Any corrective and preventive actions required to be implemented;
- Identification of areas for continual improvement;
- Status of staff competence and training needs; and
- Status of the CEMP and of any required consents and approvals and the need for review and updating.

6.2.6 The Applicant shall be informed of the outcomes/minutes of these meetings.

6.2.7 Additional and ongoing communication of environmental performance and requirements is to be determined by the environmental manager and provided as appropriate.

6.2.8 Site notice boards will display the environmental policy of the Applicant, 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 including the main reception area of the Site office.

Toolbox Talks

6.2.9 Toolbox Talks will be used to inform all site personnel of key information concerning the management of the Site, procedures to be followed and expected standards/controls when working on the Proposed Development. The Toolbox Talks will cover a broad range of topics including those related to best practice environmental management.

6.2.10 A record of Toolbox Talks will be kept on Site, stating date, description of non-conformance, potential implications, proposed corrective actions, individual responsibilities and target dates. Toolbox Talks shall include, but will not be limited to, instances where:

- There is a change to existing legislation, which requires an operational change;
- Site inspections or audits have identified corrective actions which require communicating; and
- There are significant changes in environmental conditions, i.e. heavy rainfall.

6.2.11 The frequency and topics of the Toolbox Talks shall depend upon the phase of construction. They shall be provided as often as necessary to address site-specific environmental requirements.

External Communication

6.2.12 The contractor shall take reasonable steps to engage with local community groups and residents prior to and during construction, by newsletters and flyers. Neighbouring properties will be informed in advance of works taking place, where possible within two weeks. Details shall include planned work locations, type of

works, duration, anticipated effects of the works, contact details for enquiries and complaints procedure.

6.2.13 The contractor, with the agreement of the Applicant, shall provide details visible at the Site entrance so contact can be made if required.

6.2.14 All communications received by the contractor that are relevant to these works, including enquiries and complaints, shall be passed to the Applicant.

6.2.15 All complaints will be acknowledged by the contractor or Applicant on receipt and the Applicant and contractor shall assess the complaint and determine what information is required from all parties in order to formulate a response. All complaints shall be recorded and investigated.

6.2.16 Through the induction all members of the workforce shall be made aware that any direct approaches from members of the public should be directed to their site manager. The site manager shall record all approaches made by members of the public and shall advise the Applicant of all comments received at the Site from members of the public.

6.3 Documentation

6.3.1 The site manager and/or environmental manager shall be responsible for documenting and retaining all suitable records relating to environmental issues at the Site and/or arising from site operations. Documents shall be stored in a suitable manner and backups created to safeguard the records. The CEMP shall be a controlled document and authorised latest version shall be signed and dated by the responsible person[s]. Other site data records and environmental management documentation would include, but not necessarily be limited to the following:

- Copies of relevant consents, permissions, or other approvals/authorisations;
- Environmental data records including waste transfer notes/records of waste collection and treatment/disposal;
- Records of any environmental incidents including actions taken and resolution;
- Records of complaints including actions taken and resolution;
- Records of all plant/equipment entering/leaving Site together with any relevant compliance documentation (for instance in respect of noise or air pollutant emissions class);
- Copies of any enforcement notices or instructions issued by PEDW or any statutory regulatory body;
- Record of any prosecutions pending or resolved and any penalties enforced;
- Records of daily site inspections;
- Records of weekly/monthly audits and minutes of environmental team briefings; and
- Records of staff training including site inductions and Toolbox Talks.

6.4 Monitoring, Inspections and Audits

6.4.1 The contractor shall be responsible for monitoring all site works.

6.4.2 Monitoring will be undertaken to record performance against defined standards, parameters, planning requirements and consent conditions. **Appendix F** includes an outline Environmental Consents Register that lists potential monitoring requirements during the construction of the Proposed Development. The Environmental Consents Register will be reviewed monthly.

Daily Inspections

6.4.3 Daily inspections shall be undertaken by the contractor and recorded as follows:

- Visual inspection of the Site perimeter to check for dust deposition (evident as soiling and marking) on vegetation, cars and other objects;
- Visual inspection of the local haul roads to check their condition to ensure there is no build-up of dust or earth deposits liable to cause dust emissions as vehicles pass;
- Vehicle, equipment and plant inspections shall be completed to check the absence of damage or maintenance issues and that it is correctly functioning;
- Visual inspection of all acoustic barriers/screening to check they are present and in good condition;
- Visual inspection of waste containers and waste storage areas to verify wastes are being correctly segregated and to confirm the absence of mixing of hazardous and non-hazardous wastes;
- Visual inspection of all site areas to ensure there is no deposited or wind-blown litter; and
- If a waste collection is made, a check shall be made of the Waste Transfer Note/Hazardous Waste Consignment Note provided for the collection.

6.4.4 On all days when potentially dust emitting activities are being conducted, the level of dust generation shall be kept under constant review. A record shall be added to the official site diary when such activities are conducted, the dust emission conditions observed and; when necessary, the mitigation measures taken.

6.4.5 Any elements of the site management found to be in an unsatisfactory condition during the site inspection shall be addressed on the day. In the event it is not

possible to address the matter on the day it is raised, a note of the reason why shall be made on the inspection record sheet.

Audits

6.4.6 Only suitably trained and competent staff will be authorised to perform environmental audits.

6.4.7 Monthly Audits (or at a suitable frequency to be determined by the nature/duration of the work) of the worksites and contractors shall be undertaken by or on behalf of the Applicant. All aspects of the environmental management at the Site shall be assessed against the CEMP. The audit shall include checks of the Site records including the daily inspection record sheets, vehicle arrival logs and waste disposal paperwork. All audits shall be documented; where audit actions are raised, close out of these actions shall be assessed at the following audit.

6.4.8 An audit of an Environmental Management Process will be undertaken by the environmental manager quarterly throughout the Proposed Developments construction phase and will typically cover the activities identified in the above subsections.

6.4.9 Certification Body Audits will be completed in line with external auditing schedule for the companies integrated management system.

Non-conformity and corrective action

6.4.10 Where the Applicant has a concern or raises an issue for resolution, or where potential issues are raised from an inspection or audit of the Site/operations, or by a regulatory authority, the contractor shall investigate the root cause and any implications arising from the issue and shall if necessary following discussion with the Applicant implement measures to rectify the problem.

6.4.11 The contractor shall monitor the effectiveness of the corrective action and report the outcome to the Applicant and where relevant the regulatory authority. All documentation of the issue/event and corrective action/outcome shall be retained by the contractor.

6.4.12 Where necessary the OCEMP and any associated documentation shall be revised and re-issued to avoid recurrence of the issue/problem.

6.5 Review and updates to the CEMP

6.5.1 The CEMP will be a live document and will be reviewed and updated (if required) every six months as a minimum; or following any significant change to:

- The work activities;
- Changes in working practice subsequent to incident response reviews;
- Applicant requirements;
- Legislation or policy updates; or

- Other relevant triggers for updates.

6.6 Management Review

6.6.1 A management review of the performance of the EMS will be undertaken at least every six months and will include the Applicant's Project Manager and senior management (as a minimum this should include the Project Director and HSEQ Manager and a senior corporate representative) and key personnel including the environmental manager. Matters such as staffing, training, matters arising from audits and inspections and performance against Key Performance Indicators will be discussed and where there is a shortfall in performance, actions shall be agreed to rectify this.

6.7 Legal and Other Requirements

6.7.1 Certain aspects of the construction work for this Proposed Development may be subject to environmental permits, consents, authorisations and permissions.

6.7.2 **Legal and Consents Register**

6.7.3 The Legal and Consents Register (**Appendix F**) identifies the key environmental legislation that applies to the works. The register includes a schedule of all consent submissions and a tracker to confirm they are in place for the start of works.

6.7.4 The register is a live document and will be reviewed monthly. The site manager will be responsible for ensuring appropriate resources are available and work is planned to meet the legislative requirements.

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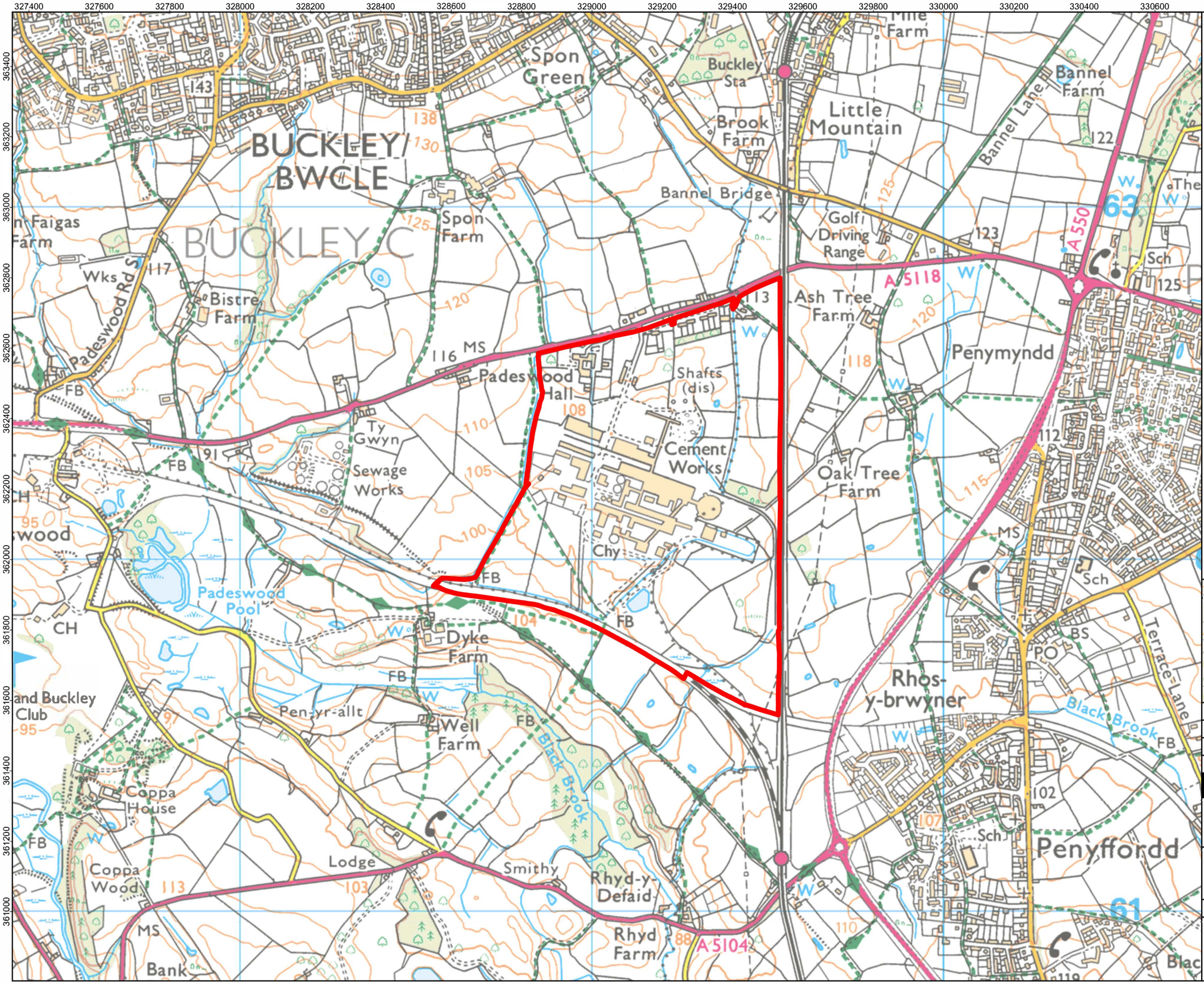
APPENDIX A LOCATION PLAN



Legend:

Planning Application Boundary

*Land Ownership Boundary is coincident with Planning Application Boundary and therefore not separately shown.

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

Rev	Date	Description	Drn	Chk	App
04	03/05/2024	Increased RLB Width	CJ	MB	HC
03	17/04/2024	Updated Legend	CJ	MB	HC
02	16/04/2024	OS Base Mapping	CJ	MB	HC

Padeswood Carbon Capture and Storage Project

RSK

TITLE: Volume 4, Technical Appendix 2.1, Appendix 1: Location Plan

ID: Volume 3, Figure 1.1 - Project Location Plan

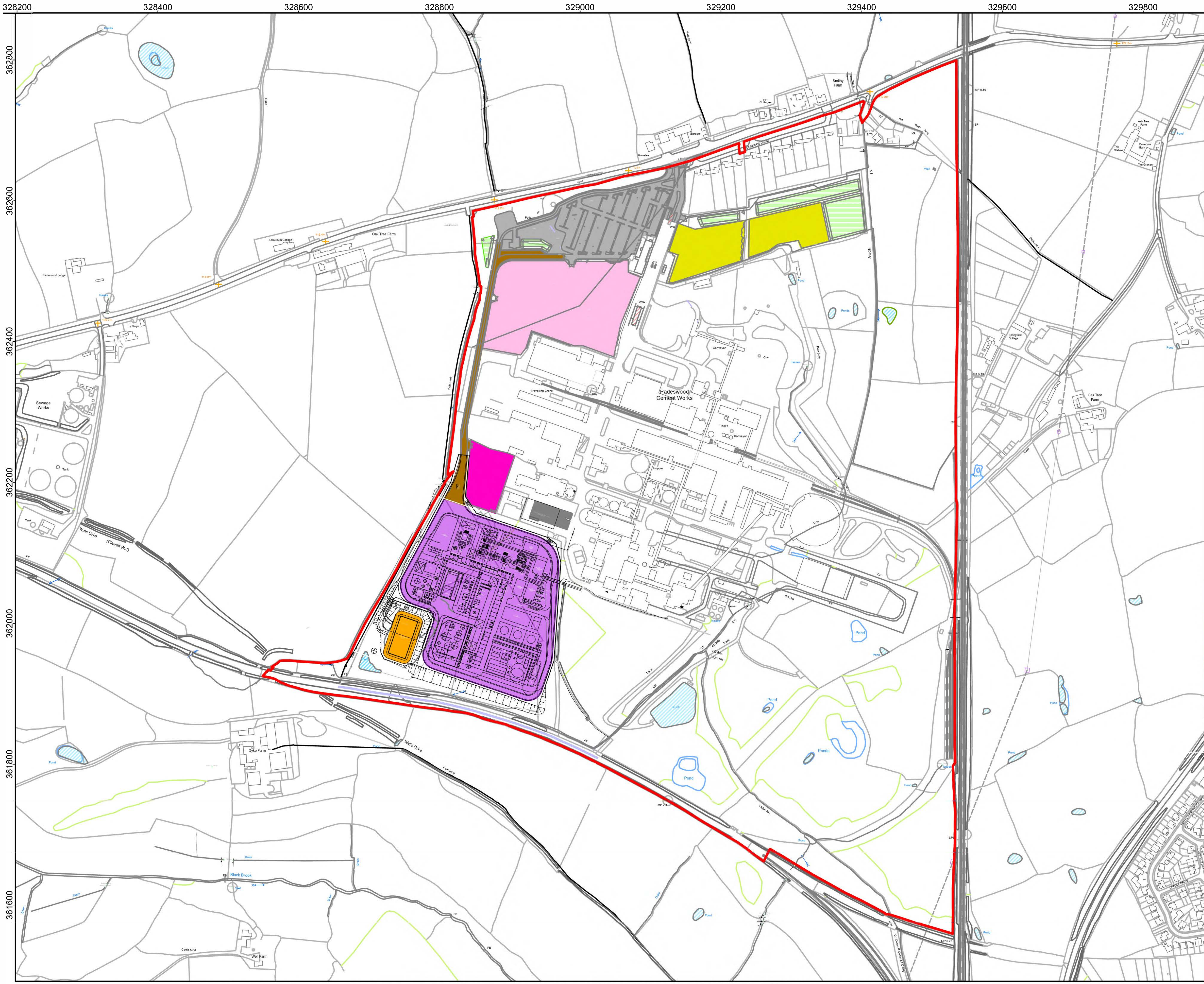
0 0.2 0.4
Kilometres

Scale: 1:10,000 @ A3

REV 04

Path: C:\Users\Connor.Jones\RSK Group\RSK Environment GIS Projects - 663575 Padeswood Routing Works 2\01 - GIS\663575 Padeswood Carbon Capture and Storage Project - Copy2024.aprx\Vol3_Fig1.1_LocationPlan

APPENDIX B SITE MASTERPLAN



Legend:

- Planning Application Boundary

*Land Ownership Boundary is coincident with Planning Application Boundary and therefore not separately shown.

- Carbon Capture Plant (including CHP and CCS areas)
- Carbon Capture Plant site access road
- Carbon Capture Plant contractor village and welfare
- Indicative landscape bunding
- General car park
- Carbon Capture Plant materials laydown and contractors storage area
- Offices and joint control centre
- Stormwater holding pond
- Carbon Capture Plant laydown and construction offices

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

Rev	Date	Description	Drn	Chk	App
10	24/06/2024	Stormwater Holding Pond Adjustment	CJ	HC	HC
09	20/06/2024	Updated Legend	CJ	MB	HC
08	03/05/2024	Updated Legend	CJ	MB	HC

Padeswood Carbon Capture and Storage Project

RSK

TITLE: Volume 4, Technical Appendix 2.1, Appendix 2: Site Masterplan

ID: Volume 3, Figure 1.2 - Site Masterplan

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Meters

Scale: 1:5,000 @ A3

REV 10

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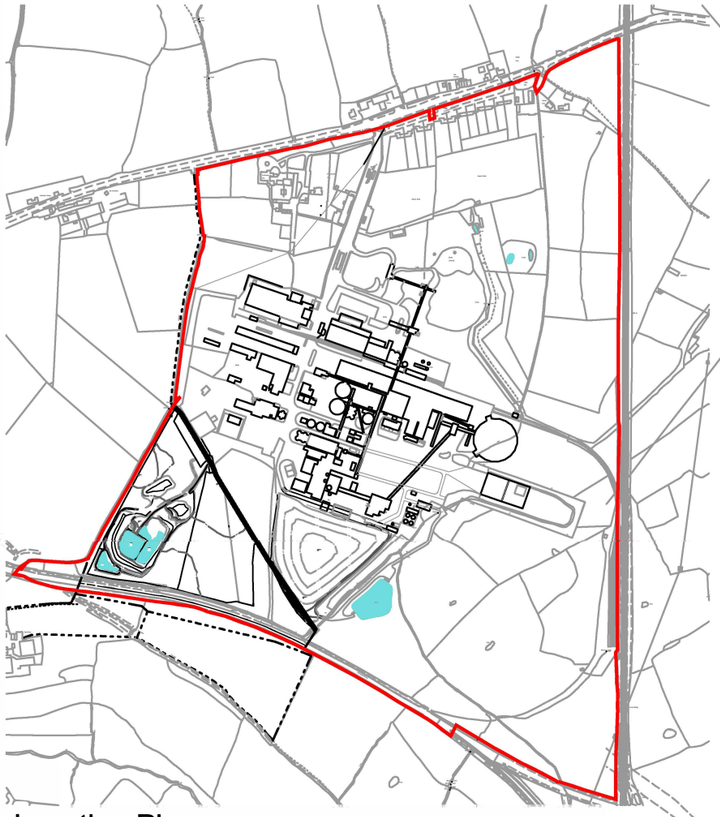
APPENDIX C FOOTPATH DIVERSION



Location Plan
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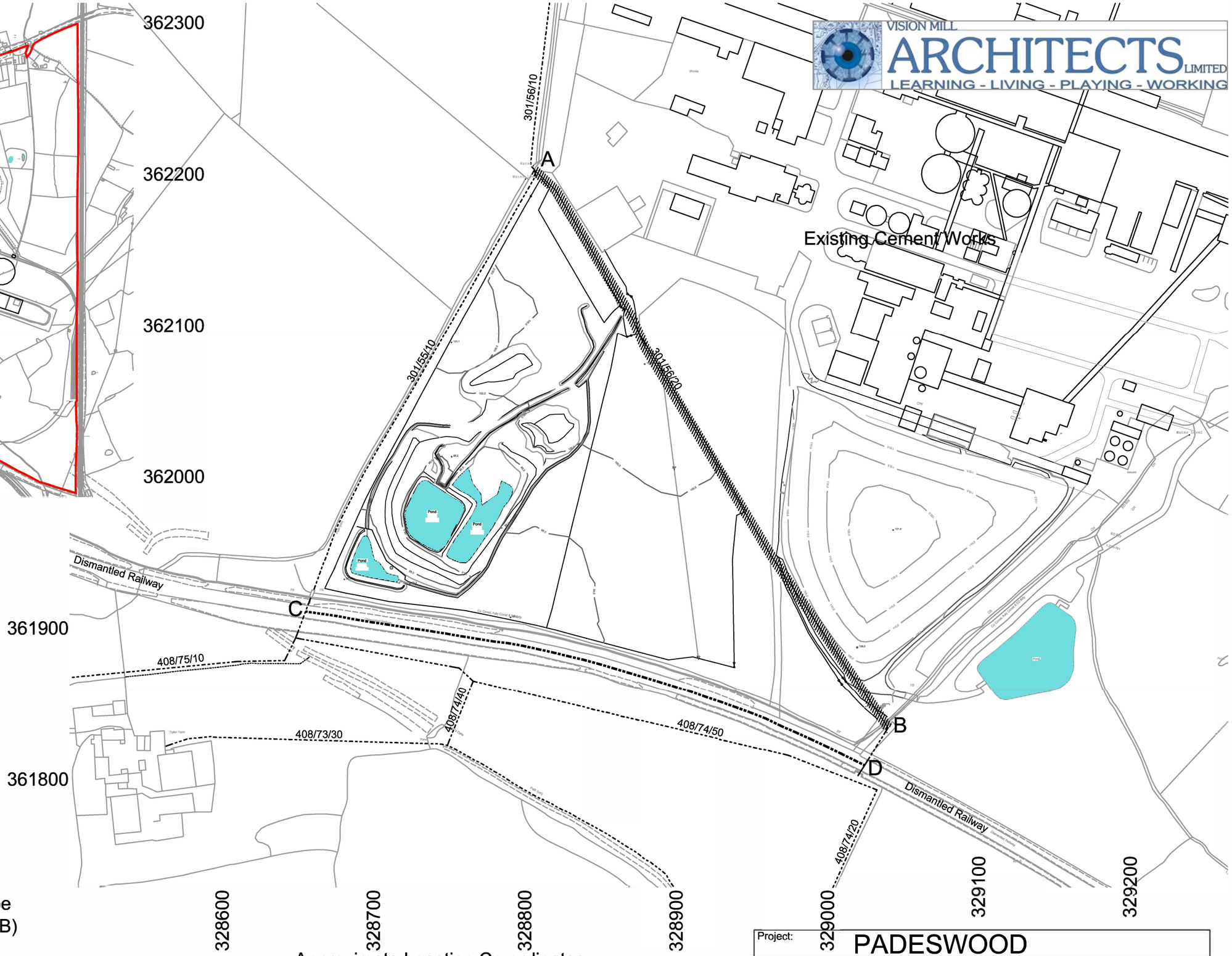

VISION MILL
ARCHITECTS LIMITED
LEARNING - LIVING - PLAYING - WORKING

KEY

Existing Footpath to be stopped up (points A-B) approx 437.7metres

Proposed footpath to be created (points C-D) Approx 385.3metres

Approximate Location Co-ordinates

A	SJ 328807-362201
B	SJ 329041-361833
C	SJ 328656-361910
D	SJ 329025-361808

Project:	PADESWOOD
Client:	
Drawing Title:	The Diversion of Highways (Public Footpath 56, Mold, Flintshire) Order 2024
Drawing Number:	2022-34-FP02
Job No.: 2022-34	Scale: 1:2500 @ A3
Date: 26.06.2023	Revision: G
Drawn By: DPT	Checked By:

APPENDIX D ENVIRONMENTAL MANAGEMENT MATRIX

Environmental Management Matrix Rev00

ACTIVITY	ASPECT	IMPACT	MITIGATION	WHO	FREQUENCY
Mobilisation/ site clearance and compound set-up					
Site establishment	Water quality	Works affecting watercourses	No works (in, over, under) will be undertaken within 20m of a watercourse bank without technical environmental advice regarding the requirement for a permit. Works can only proceed once appropriate mitigation (within technical environmental advice or permit conditions) has been installed and all conditions met.	Site Manager/ SHE Manager	Pre-construction planning
	Flora and fauna	Removal of habitat and disturbance to wildlife	Works will not commence until an Ecological Appraisal has been completed and appropriate mitigations have been implemented. If during work activities it is suspected that a protected species has been disturbed, all works in the immediate area must cease until a qualified ECoW attends the site.	Site Manager/ SHE Manager	Pre-construction planning
	Archaeology	Disturbance of archaeology	No ground intrusive works shall commence until an Archaeological Appraisal has been completed and appropriate mitigations have been implemented.	Site Manager/ SHE Manager	Pre-construction planning
	Public Rights of Way	Closure/ diversion of Public Rights of Way	Public Rights of Way (PRoWs) shall remain open where possible. Applications for consent for any closures / diversions to existing PRoWs will be obtained and agreed with the local authority in advance of the required works. Advance provision of clear signs to indicate the reasons for, and duration of, the closure or diversion. Provision of adequate advance notification of any closure or diversion at car parks along the route and popular starting points for walkers, along with notices to walking clubs and ramblers' websites etc. Reinstating footpaths and bridleways/PRoWs fully on completion of construction and restoration works (to the satisfaction of the relevant rights of way officer).	Site Manager/ SHE Manager	Pre-construction planning
Hazardous material storage and use	Release to water/ groundwater/ land	Polluting environment	Storage and handling of hazardous substances (including fuels) should not occur within 10 metres from any inland freshwater or coastal waters, or within 50 metres from a well or borehole. The secondary containment system must provide storage for at least 110% of the tank's maximum capacity and ensure that any valves, filters, sight gauges, vent pipes or other ancillary equipment are also situated within the secondary containment system and arranged so that any discharges would be contained. Fuel tanks, secondary containers and storage compounds shall be inspected monthly for damage, corrosion, leaks, faults and vandalism. Repair defects/faults immediately and retain records. All hazardous materials shall be labelled, sealed and stored with their COSHH assessment in a bunded and lockable container away from drains and watercourses when not in use. Hazardous liquids shall be transferred using a funnel and drip tray and sealed and returned to the container immediately after use. Damaged containers shall be reported to the Site Manager. Fully lockable and labelled 'Fuel Safe Static Tank' will be deployed. All drains located adjacent or near to refuelling points shall be covered by Gully Guards before commencing transfer. All fuel transfers to be supervised. Where possible, refuelling should only be carried out in a designated area, which will be secured/locked out of hours. Suitable and sufficient spill kits shall be provided. Note: for sites close to water courses and drains, enhanced spill kits must be provided . Spill kit supply to be monitored weekly to ensure adequate stock remains full.	Snr Foreman	Weekly
Site establishment	Local issues (nuisance)	Visual intrusion	Cabins and site facilities will be placed, where possible, out of line-of-sight of local residents. Maintain good housekeeping and site working practices to control litter, insects or vermin. For example, dispose of food into appropriate receptacles. The site shall be set up with hoarding to reduce dust leaving the site. The site boundary shall be secured appropriately and all site gates shall be kept locked / closed out of working hours and kept closed and /or manned during working hours. Wherever possible, lighting shall be located and directed so that it does not cause unnecessary intrusion to local residents. Lighting shall be switched off when not in use unless specifically needed for construction activities or for security and / or health and safety requirements. Glare (and the potential for complaints) caused by poorly directed security and floodlighting shall be minimised by ensuring that light fittings are horizontally mounted and directed inwards on Site. Post-installation checks and monitoring of the lighting installations shall be undertaken to ensure that correct tilting angles and appropriate direction of lighting is achieved. This will allow adjustments to be made, where practicable, should undue light spill or glare be identified.	Site Manager/ SHE Manager	Weekly
Site operations/ use of plant and equipment		Noise impact to local residents	Local Authority consent must be obtained for particularly noisy activities before starting works. For example, crushing and piling. Contractors and operatives must be informed of consent conditions. Noisy works and deliveries to and from the site shall be conducted within the core working hours. Where necessary, deliveries outside of these core hours would be agreed in advance with the local authority. Plant shall be selected with noise levels in mind and it is important that quiet or silent plant is used. If possible, electrically powered plant should be used. All plant shall be suitability maintained and noise screens shall be used where required. Use generators having a sound power level rating below 65db(A), fully canopied and silenced. To assist with noise attenuation, where possible, generators will be located away from adjacent residents, also taking account of prevailing wind conditions. Position exhausts away from site boundaries and occupied areas when in use. All generators (and other noisy plant) shall be switched off overnight and when not in use. If heat is needed for drying rooms this should be provided via storage type heaters.	Site Manager/ SHE Manager	Pre-construction planning
Deliveries and work force travel	Traffic and transport	Traffic affecting local residents	Effective traffic management will be planned and implemented, where required in agreement with the Local Authority. Sufficient parking arrangements will be provided for site staff, to prevent parking on the side of the road.	Site Manager/ SHE Manager	Pre-construction planning
Deliveries and work force travel. Use of plant and equipment.	Air emissions	Exhaust fumes affecting local residents/ environment	All equipment shall be inspected before use and any defects/faults reported to the Site Manager. All vehicle engines will be switched off when not in use to reduce particulate emissions. Exhaust systems will be fitted with particulate filters and catalytic converters as necessary.	Snr Foreman	Daily
Site operations	Waste management	Lack of suitable facilities leading to increased landfill	A waste collection area shall be set up before site works start. This area shall be as close to the site compound as possible with adequate hardstanding for the waste containers and unobstructed access for telehandler and waste removal vehicles. A waste management plan shall be made available on site and its requirements understood by all Contractors and operatives before starting work on site. Monthly updates on the amount of waste successfully recycled will be made available to the Site Manager and displayed in the site office and can also be issued to the council upon request.	Site Manager/ SHE Manager	Pre-construction planning/ Monthly
	Use of natural resource	Depletion of natural resources	Mains electricity shall be used where available. If unfeasible, generators are to be used and must be sized for the required output; if diesel they must be set up by the supplier.	Site Manager/ SHE Manager	Pre-construction planning
Groundworks					
Topsoil stripping/ excavations	Soil management	Mixing of soil strata and loss of structure	A soil management plan will be developed detailing procedures for soil handling, storage and transfer (aligned to CIRIA Guidance: Sustainable management of waste soils and aggregates (RP1124)). The site works shall be designed to retain as much soil on site as possible whilst maintaining protection of human health and the environment. Excavated material surplus shall be minimised so far as practicable. Stockpiles shall be covered, seeded or fenced (as appropriate) to prevent wind whipping.	Site Manager/ SHE Manager	Pre-construction planning
	Flora and fauna	Removal of habitat and disturbance to wildlife.	Works will not commence until an Ecological Appraisal has been completed and appropriate mitigations have been implemented. If during work activities it is suspected that a protected species has been disturbed, all works in the immediate area must cease until a qualified ECoW attends the site.	Site Manager/ SHE Manager	Pre-construction planning
	Archaeology	Disturbance of archaeology	Groundwork activities will not commence until an Archaeological Appraisal has been completed and appropriate mitigations have been implemented.	Site Manager/ SHE Manager	Pre-construction planning
	Land contamination	Disturbance of contaminated ground	Known areas of contaminated land will be managed according to a method statement provided by a technical specialist. Where unknown contaminated land is disturbed, works will cease until analysis is completed by a technical specialist and appropriate mitigations have been implemented. Stockpiles of contaminated material must be situated on an impermeable surface at least 10m from any surface waters or drains, and run-off collected within a bund. Potentially contaminated water must be tested before dewatering. Contaminated water must be treated or discharged off site using an appropriate waste permit.	Snr Foreman/ SHE Manager	Pre-construction planning/ daily
	Release to water	Silt run-off/ excavation dewatering entering watercourses and affecting aquatic life	Minimise any areas of soil stripping and stockpiling. Surface water and drains must be protected from silt run-off (e.g. silt fences/ bunds/ french drains) to prevent silt laden water from entering them. All silt protection measures must be inspected weekly and maintained throughout the works. Tracking or washing out next to drains/surface waters must be avoided. Permit to Pump to be used to remove water from excavations, aligned to statutory guidance. If a discharge consent is required, then all conditions within the consent must be understood before commencement of dewatering. If necessary temporary bunding and/or settlement ponds will be installed to allow for isolation and onsite treatment of any sediment laden or contaminated water prior to managed discharge. Vehicle washdown facilities shall be appropriately managed to contain contaminants and regulate reuse or disposal of the water.	Snr Foreman	Daily
	Water quality	Works affecting watercourses	No works (in, over, under) will be undertaken within 20m of a watercourse bank without technical environmental advice regarding the requirement for a permit. Works can only proceed once appropriate mitigation (within technical environmental advice or permit conditions) has been installed and all conditions met.	Site Manager/ SHE Manager	Pre-construction planning
	Local issues (nuisance)	Dust generation potentially smothering crops or plants/ affecting local residents	Site layout shall be planned so that machinery and dust causing activities are located away from receptors, as far as is possible. Where foreseeable and significant dust is to be generated during an operation, dust fencing and/or barriers must be provided to minimise impact. Timing of earthworks and material movements shall be planned to reduce double handling and minimise traffic movements and therefore associated dust and mud. If dust levels remain excessively high when adequate control measures are in place and operating effectively, then reduce or postpone works during such times (e.g. during dry or windy periods).	Snr Foreman	Daily
Deliveries and work force travel. Use of plant and equipment.	Air emissions	Exhaust fumes affecting local residents/ environment	All equipment shall be inspected before use and any defects/faults reported to the Site Manager. All vehicle engines will be switched off when not in use to reduce particulate emissions. Exhaust systems will be fitted with particulate filters and catalytic converters as necessary.	Snr Foreman	Daily
Muck-away and deliveries	Traffic and transport	Wagon movements affecting local residents	Effective traffic management will be planned and implemented, where required in agreement with the Local Authority.	Site Manager/ SHE Manager	Pre-construction planning
		Mud/ dust on road affecting local residents	Wash facilities for vehicular use located close to the site entrance shall be connected to an offline gully and trap system located within the site boundary. Haul routes shall be hard surfaced and/or effectively damped down and shall be kept clear of soil as much as possible. All vehicles carrying soil off-site must be sheeted. All vehicle engines will be switched off when not in use to reduce particulate emissions. Mechanical road sweepers shall be employed to clean roads of any dust and debris if it is generated within the vicinity of the site entrance.	Snr Foreman	Daily
Establishing haul roads/ hard-standings	Use of natural resource	Depletion of natural resources	The environmental impact of materials will be considered in the procurement process. Ordered materials shall be managed to avoid over-ordering or spoilage of surplus materials. Surplus materials are to be reused on site where possible.	Project Manager/ Site Manager	Pre-construction planning/ monthly
Civils					
Laying concrete foundations/ floorings etc	Use of natural resource	Depletion of natural resources	The environmental impact of materials will be considered in the procurement process. Ordered materials shall be managed to avoid over-ordering. Surplus materials are to be reused on site where possible.	Project Manager/ Site Manager	Pre-construction planning/ monthly
	Release to water/ groundwater/ land	Concrete wash-out water incorrectly treated and disposed of, polluting receiving environment	All drains adjacent or near to concreting works shall be covered with Gully Guards before commencing mixing. Concrete wagons should be instructed to not wash-out onsite. A designated wash-out container will be provided to clean the delivery chute. Concrete washings must be treated and tested prior to discharge onsite. RPS 235 'Treating and using water that contains concrete and silt at construction sites' provides further guidance.	Snr Foreman	Daily
Concrete wagon movements	Traffic and transport	Wagon movements affecting local residents	Effective traffic management will be planned and implemented, where required in agreement with the Local Authority.	Site Manager/ SHE Manager	Pre-construction planning
		Mud/ dust on road affecting local residents	Wash facilities for vehicular use located close to the site entrance shall be connected to an offline gully and trap system located within the site boundary. Haul routes shall be hard surfaced and/or effectively damped down and shall be kept clear of soil as much as possible. All vehicles carrying soil off-site must be sheeted. All vehicle engines will be switched off when not in use to reduce particulate emissions. Mechanical road sweepers shall be employed to clean roads of any dust and debris if it is generated within the vicinity of the site entrance.	Snr Foreman	Daily
Piling	Local issues (nuisance)	Noise and vibration affecting local residents	Employ rotary piling techniques where possible. Position piling rigs away from local residents, so noise is emitted away from them. Install acoustic sleeves around the piling hammer to contain the noise.	Site Manager	Pre-construction
Build and fit-out					
Procurement and material management	Housekeeping	Poor management of materials leading to wastage	The environmental impact of materials will be considered in the procurement process. Ordered materials shall be managed to avoid over-ordering or spoilage of surplus materials. A storage compound will be developed to safely store materials to prevent damage from traffic and weather. Surplus materials are to be reused on site where possible. Surplus dry (powder) concrete, cement and grout is to be collected and reused where possible e.g. as inert rubble. Reuse of dried materials may require environmental permits or exemptions. Encourage the reuse of cut-offs and arrange for suppliers to take back unused surplus materials and packaging. All reuse and recycling to be carried out in accordance within the terms of a valid waste exemption or voluntary codes of practice/protocols. Hazardous liquids must be re-sealed after use. Empty containers are to be disposed of to the designated container within the waste compound.	Project Manager/ Site Manager/ Snr Foreman	Pre-construction planning/ monthly/ weekly/ daily
Use of plant and equipment	Air emissions	Exhaust fumes affecting local residents/ environment	All equipment shall be inspected before use and any defects/faults reported to the Site Manager. All vehicle engines will be switched off when not in use to reduce particulate emissions. Exhaust systems will be fitted with particulate filters and catalytic converters as necessary.	Snr Foreman	Daily
Block cutting/ aggregate deliveries etc	Local issues (nuisance)	Dust generation potentially smothering crops or plants/ affecting local residents	Where feasible the site or specific operations shall be fully enclosed where there is a high potential for dust production and the site is active for an extensive period. Drop heights must be kept to a minimum and conveyors and enclosed wherever possible.	Snr Foreman	Daily
Deliveries and work force travel	Traffic and transport	Wagon movements affecting local residents	Effective traffic management will be planned and implemented, where required in agreement with the Local Authority.	Site Manager/ SHE Manager	Pre-construction planning
		Mud/ dust on road affecting local residents	Wash facilities for vehicular use located close to the site entrance shall be connected to an offline gully and trap system located within the site boundary. Haul routes shall be hard surfaced and/or effectively damped down and shall be kept clear of soil as much as possible. All vehicles carrying soil off-site must be sheeted. All vehicle engines will be switched off when not in use to reduce particulate emissions. Mechanical road sweepers shall be employed to clean roads of any dust and debris if it is generated within the vicinity of the site entrance.	Snr Foreman	Daily
Waste management					

Waste management	Duty of Care	Non compliance to legislation	Wastes shall be collected by a licenced waste carrier. A copy of all Waste 'Duty of Care' documentation shall be held on site. Duty of Care documentation must be completed for all waste transfers and copies provided to the Client every week. Waste transfer notes or hazardous waste consignment notes and Duty of Care procedures are to be audited regularly (monthly as a minimum). Soil and recycled aggregate transfers shall be carried out in accordance with an approved Materials Management Plan (or Remediation Strategy in Scotland) and all transfer tickets must be retained on site.	Site Manager/ SHE Manager	Monthly/ Weekly/ Daily
	Segregation	Cross contamination of materials	Where possible, all waste shall be segregated on site. Skips shall be provided to segregate wastes including plasterboard, timber and metal. A designated area shall be provided for inert wastes, for example bricks, clay pipes and roof tiles. A designated container[s] shall be provided for hazardous wastes, which and must be clearly labelled. Hazardous waste streams must be segregated and stored in accordance to their safety data sheets. All road sweepings must be removed from site accompanied with a completed waste transfer note from the driver. If road sweepings are inadvertently discharged on site, these should be disposed of appropriately. All plasterboard waste shall be segregated on site and returned for recycling (e.g. to British Gypsum). All timber is to be segregated on site and sent to a local charity (or similar outlet) for recycling. All metal is to be segregated on site and sent for recycling. All inert waste (e.g. bricks, blocks, concrete) will be segregated on site and used under roads, driveways etc (this may require environmental permits or exemptions). All mixed waste removed from site shall be taken to a material recycling facility for further segregation to maximise recycling and recovery.	Site Manager/ Snr Foreman	Pre-construction planning/ Weekly
Demobilsation					
Demobilsation	Traffic and transport	Wagon movements affecting local residents	Effective traffic management will be planned and implemented, where required in agreement with the Local Authority.	Site Manager/ SHE Manager	Pre-construction planning
		Mud/ dust on road affecting local residents	Wash facilities for vehicular use located close to the site entrance shall be connected to an offline gully and trap system located within the site boundary. Haul routes shall be hard surfaced and/or effectively damped down and shall be kept clear of soil as much as possible. All vehicles carrying soil off-site must be sheeted. All vehicle engines will be switched off when not in use to reduce particulate emissions. Mechanical road sweepers shall be employed to clean roads of any dust and debris if it is generated within the vicinity of the site entrance.	Snr Foreman	Daily

APPENDIX E INCIDENT RESPONSE

Incident Response

1 OIL, FUEL OR CHEMICAL SPILL

1.1 To ground

i. Wearing protective clothing, prevent further release at source e.g. switch off tap/ valve, correct leaking drum and make safe the area.

ii. If the spill is migrating, create a temporary bund to prevent further spread by using spill kit materials / sandbags.

iii. If drains or field ditches are located nearby, install drain seals/ deploy additional spill kit materials to prevent the spill discharging to the drain or ditch.

iv. Apply absorbent granules or pads (available from spill kit) to the affected area.

v. The Contractor will notify the Environment Agency regarding the nature and scale of incident. The following information should be included in the notification:

- Time of discharge;
- Type/quantity of material discharged;
- Location of discharge; and
- Site contact details.

vi. The Contractor will notify the Client of the incident and communicate the information provided to the Environment Agency.

vii. The Client will notify the Local Planning Authority regarding the nature and scale of the incident as per the requirements of the Environmental Damage (England and Wales) Regulations 2015.

viii. Containment measures should remain in place until the nature and extent of the contamination can be assessed and a remediation strategy must be prepared.

All impacted materials shall be disposed of in accordance with relevant legislative and regulatory requirements and the Duty of Care requirements outlined in the CoCP.

1.2 To surface water feature

i. Wearing protective clothing, prevent further release at source e.g. switch off tap/ valve, correct leaking drum and make safe the area.

ii. If source not readily identifiable, contain first (see below) then identify and prevent further release at source.

iii. Immediately deploy appropriate sized boom from nearest spill kit across affected surface water feature. Use stakes to attach it to the sides of the surface water feature. Tie booms together to increase length if required.

iv. Supplement with additional booms across the surface water feature, as required, to contain any migration of the spill not halted by the first installation.

v. The Contractor shall notify the Environment Agency regarding the nature and scale of incident. The following information should be included in the notification:

- Time of discharge;

- Type/quantity of material discharged to surface water feature;
- Location of discharge; and
- Site contact details.

vi. The Contractor shall notify the Client of the incident and communicate the information provided to the Environment Agency.

All impacted materials will be disposed of in accordance with relevant legislative and regulatory requirements and relevant Duty of Care requirements.

1.3 To drainage system

i. Wearing protective clothing, prevent further release at source e.g. switch off tap/ valve, correct leaking drum and make safe the area.

ii. If source is not readily identifiable, contain the visible pollutant first, then identify and prevent further release at source.

iii. Immediately deploy appropriate drain cover(s) to affected gullies.

iv. Supplement with booms around the gully to contain any migration of the spill.

v. The Contractor shall notify the Environment Agency and the relevant water company regarding the nature and scale of incident. The following information should be included in the notification:

- Time of discharge;
- Type/quantity of material discharged to the drain;
- Location of discharge, specifically which drain; and
- Site contact details.

vi. The Contractor shall notify the Client of the incident and communicate the information provided to the Environment Agency.

All impacted materials shall be disposed of in accordance with relevant legislative and regulatory requirements and relevant Duty of Care requirements.

2 CONTAMINATION

2.1 Discovery of unexpected contamination

i. On the discovery of unexpected contamination, the Contractor will immediately halt works in the area.

ii. If impacted materials have already been removed they shall be returned to the excavation or placed on to a membrane, e.g. terram, to prevent migration of the contaminant to another area.

iii. Contractor to report the situation to the Client.

iv. Arrangements will be made between the Contractor and the Client for samples of the contamination to be collected and tested on fast turnaround.

v. Contractor to only continue with works in the area once the test results have confirmed the contaminant and a safe means of working has been established.

The Contractor shall be free to continue works in areas unaffected by the contamination, BUT the Contractor will not speculatively continue to excavate material to find the extent of the contamination without supervision from a geo-environmental engineer.

All impacted materials will be disposed of in accordance with relevant legislative and regulatory requirements as well as relevant Duty of Care requirements.

2.2 Contamination of or by waste materials

i. Assess whether the area needs to be evacuated, such as if fumes are being given off.

ii. Assess whether the damage can be undone through segregation.

iii. Complete a risk assessment for the task including consideration of any COSHH risks.

iv. If it is safe to do so segregate the waste. If it is not safe to do so, then the full waste quantity is to be consigned as hazardous waste.

v. Contractor to report the incident to the Client.

vi. Waste to be collected from site in accordance with normal practice.

3 DISCOVERY OF ARCHAEOLOGICAL ARTEFACT OR HERITAGE FEATURE

i. Immediately stop works in the area of the artefact or feature.

ii. Ensure the area is isolated from interference by erecting fencing around the discovery. Prevent vehicles from navigating through this area.

iii. Provide a safe means for pedestrians; and if possible vehicles, to move around the isolated area.

iv. Contractor shall report the find to the Client.

v. Client to arrange for the find to be assessed by a qualified heritage or archaeological specialist. The Contractor is to prevent tampering with the find until it has been assessed.

vi. Works to proceed in accordance with the recommendations given by the heritage or archaeological specialist.

4 SILT

In the event of an unexpected discharge of silty water, then:

i. Prevent further release at source e.g. cease dewatering the excavations.

ii. Contain silt and protect sensitive receptors from further discharge:

- If a drain is located nearby, install drain seals or deploy spill kit materials to prevent discharge.
- If silt flow is in the direction of surface water features deploy hay bales around surface the feature.
- If silt is being generated by runoff from stockpiles deploy spill kit materials, silt fencing or move soil to form a bund at the base to prevent further silt laden runoff from the stockpile.

iii. If silt is discharged without prior approval the Environment Agency shall be notified. If the silt discharge enters the drainage system the relevant water company shall also be notified regarding the nature and scale of incident. The following information should be included in all notifications:

- Time of discharge;
- Type/quantity of material discharged;
- Location of discharge, e.g. which drain or surface water feature; and
- Site contact details.

5 COMPLAINT OVER A NUISANCE

This procedure should be followed for all nuisance complaints including noise, dust and light.

i. Immediately stop the activity leading to the complaint; or where not possible to entirely stop the activity reduce it to the lowest possible level e.g. shut off all non-essential plant.

ii. Remain polite and courteous. If able to resolve the issue through discussion with the complainant, then determine what action is needed and put it into practice.

iii. Record the details of the complainant including their name, contact details and address. Contractors shall report the details of the complaint and the complainant to the Client.

iv. The Contractor and the Client will register the complaint on the Complaints Log.

v. The Client will act on the complaint and remedial actions will be put in place within 24 hours.

6 ECOLOGICAL DISCOVERY OR DAMAGE

i. Immediately stop works in the area.

ii. Contractor to immediately report the incident to the Client.

iii. Client to arrange for a qualified ecologist to assess the discovery or damage caused.

iv. Works to proceed in accordance with the advice received from the ecologist.

7 VANDALISM/THEFT PROCEDURE

Acts of theft and vandalism present the risk that damage may be caused to equipment containing hazardous substances that could cause pollution, or damage may be caused to measures which have been installed to prevent the release of pollution. On identifying an act of vandalism or theft:

i. The Contractor shall notify the Police of the incident.

ii. Inspect all fuel storage tanks/drums and equipment to ensure there has been no release of the fuel or other hazardous substances, e.g. hydraulic fluid.

iii. If a spill is identified follow the procedures for Oil, fuel or chemical spills.

iv. Inspect pollution protection measures, e.g. drainage or silt protection, to ensure it has not been interfered with. Where it is possible, correct any issues identified without causing further release.

v. Inspect site boundaries to identify the access point if not immediately clear and secure the site.

8 EXPLOSION / FIRE PROCEDURE

Explosion/fire incidents should also be dealt with through health and safety procedures. In the event that a fire is detected or an explosion occurs:

i. Notify the emergency services and evacuate the area.

ii. Attempt to tackle the fire with site equipment only when it is safe to do so.

iii. Ensure that pollution of nearby water bodies including surface water drainage from fire control water or other substances is minimised. Where possible and safe to do so, any site drainage systems should be protected through the deployment of drain seals/ spill kit materials to ensure any firefighting waters are captured and can be disposed of appropriately.

iv. At a time when it is acceptable to do so, the Environment Agency shall be notified regarding the nature and scale of incident. The following information should be included in the notification:

- Nature of the incident;
- Time and date of the incident;
- Quantity of fire control water discharged to surface water feature/drainage, where relevant;
- Location of discharge; and
- Site contact details.

APPENDIX F ENVIRONMENTAL CONSENTS REGISTER

	Environmental Consents	Revision:	Date:
Site Location:			
Site Description:			
Project Manager			
SHE Manager			

Consent reference	Item	Status	Responsibility
ABC/123	*Section 61*	*Open*	*Snr Foreman*
DEF/456	*Water abstraction exemption*	*Open*	*SHE Manager*