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Humber
Carbon Capture
Pipeline

Humber Carbon Capture Pipeline Trial Horizontal Directional Drill (HDD)

Outline Construction Environmental Management Plan

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1 Introduction

1.1 Purpose and Scope

- 1.1.1 This Outline Construction Environmental Management Plan (OCEMP) establishes minimum standards and procedures for managing and minimising, as far as is reasonably practicable, the environmental impacts from the proposed Trial Horizontal Directional Drill (HDD) crossing the Humber River (the Proposed Development). The crossing is situated within the administrative boundaries of North Lincolnshire Council (Humber South Compound) and East Riding of Yorkshire Council (Humber North Compound).
- 1.1.2 The purpose of an OCEMP is to develop, maintain, implement, monitor, and improve environmental control procedures in accordance with the relevant legal and regulatory requirements, contract specification and the relevant Contractor Business Management System complying with ISO 14001:2015.
- 1.1.3 This OCEMP has been prepared to ensure that the general health and safety issues relating to the environment as well as environmental effects of the works are minimised and that the project is undertaken in a responsible manner in line with current industry best practice, and at the same time minimising harm and the disruption to the surrounding environment. The OCEMP sets out the framework for how environmental risk will be managed during construction prior to the detailed Construction Environmental Management Plan (CEMP) that will be developed by the Principal Contractor.
- 1.1.4 This OCEMP is not a replacement of the Principal Contractor's site-specific Construction Phase Plan (CPP) that will be developed prior to works commencing. The OCEMP will be updated prior to construction to a detailed CEMP, a copy of which will be incorporated into the Principal Contractors CPP and altered and developed as the works progress on site. North Lincolnshire Council and East Riding of Yorkshire Council will be notified of specific amendments in the CPP that relate to the detailed CEMP as they are developed on site.
- 1.1.5 As a minimum, the Principal Contractor will be required to comply with applicable environmental legislation at the time of construction of the Project together with any additional environmental controls imposed by the planning approval. The references to guidance documents and associated reporting within this OCEMP are not intended to be exhaustive.

1.2 Structure of this Document

1.2.1 The OCEMP is a live document which is updated as and when required. This OCEMP will be updated should any further information become available prior to construction commencing on site and comprises the following sections:

- Introduction
- Project Description
- Environmental Management and Implementation
- Site Operations
- Environmental Control Measures
- Communication

2 Proposed Development Overview

2.1 Project Description

2.1.1 The Proposed Development comprises early investigation works consisting of a Trial Horizontal Directional Drill (HDD) under the Humber River with temporary compound areas and associated accesses on both sides of the River Humber.

2.1.2 The Applicant (the Net Zero North Sea Storage Ltd), which is the promoting entity of the Northern Endurance Partnership (NEP) intends to progress with an application for a Development Consent Order (DCO) for the Humber Carbon Capture Pipeline (HCCP). The Trial HDD early investigation works will support the on-going design of the HCCP project. These works would be subject to planning applications required under the Town and Country Planning Act as the Proposed Development is being undertaken prior to the DCO.

2.1.3 The Trial HDD comprises the following:

- An approximately 4.7ha construction compound and temporary access track on the north side of the Humber River near Paull (the Humber North Compound) in the East Riding of Yorkshire Local Planning Authority (LPA) area;
- An approximately 4.1ha construction compound and temporary access tracks on the south side of the Humber River near Goxhill (The Humber South Compound) in the North Lincolnshire LPA area; and
- Underground ground investigation works using a Horizontal Directional Drill (HDD) under the Humber River, within an approximate 7.3ha long corridor. The Trial HDD crosses both LPA areas mentioned above in addition to passing under the tidal estuary which falls within the UK Marine Area.

2.1.4 The Trial HDD proposals within the application sites comprise:

- Two proposed temporary compounds (one on each side of the Humber River) for welfare, equipment laydown, drill entry point, retention pond, and parking;
- Temporary access tracks linking the compounds to the local road network and associated temporary laydown areas;
- An area underground where the Trial HDD would take place, requiring the permanent installation of approximately 150m of 42-inch diameter metal casing on the north side, and approximately 50m on the south side. The casing guides the bore through unstable soils; and

- Permanent installation of a section of 3 to 4.5 inch diameter pipe sleeve, which acts as a physical placeholder to prevent collapse etc, throughout the whole length of the HDD under the Humber River.

3 Environmental Management and Implementation

3.1 Key Contacts

3.1.1 The proposed information to be provided for key contacts is outlined in Table 3-1, to be updated for the detailed CEMP.

Table 3-1 – Key Contacts

Client

TBC	Key Contact	TBC	Tel	TBC
			Email	TBC

Client Project Manager

TBC	Key Contact	TBC	Tel	TBC
			Email	TBC

Principal Contractor

TBC	Key Contact	TBC	Tel	TBC
			Email	TBC

3.2 Roles and Responsibilities

3.2.1 Proposed key roles and responsibilities are outlined in Table 3-2.

Table 3-2 – Key Roles and Responsibilities

Roles	Responsibilities and accountabilities
Construction Manager (Principal Contractor)	<p>The construction manager has overall responsibility for coordinating and managing all the activities during the construction works. The construction manager has overall responsibility for the environmental performance of the project and all staff.</p> <p>Duties associated with this role include:</p> <ul style="list-style-type: none"> • Providing information on contract requirements to the Environmental Manager/Advisor following contract award and prior to start of works on site. • Approving the detailed CEMP and ensure that all controls specified within this CEMP are implemented by employees and sub-contractors. • Ensuring environmental and waste requirements are included on requisitions and in subcontracts and orders. • Ensuring that all required consents/licences are in place prior to work commencing on site. • Ensuring the logging and monitoring of incidents and non-compliances. Reporting incidents and non-compliances to the Applicant's Project Manager at the earliest possible opportunity. • Ensuring the Client is informed of all environmental complaints. • Providing an initial point of contact for members of the public/local community who have queries regarding the works. • Ensuring employees and sub-contractors receive induction training (including environmental) and toolbox talks, as appropriate. • Identifying the competencies of all staff and ensuring delivery of training (including environmental training); • Verifying actions resulting from non-compliances and observations raised during audits are completed by the deadlines set to ensure the safe, effective, and efficient preparation and delivery of all in scope construction works. • Undertaking inspections alongside the Construction Environmental Manager/Advisor to ensure that the environmental controls as set out within the detailed CEMP are in place and working effectively. • Ensuring all records are retained and readily available on Site.
Site Materials and Waste Manager	<p>The Site Materials and Waste Manager is responsible for implementing the Site Waste Management Plan ("SWMP") throughout the construction of the project and to ensure that waste is disposed off legally, economically and safely in line with the SWMP and all relevant legislation.</p>
Community Liaison Officer	<p>Will be the primary contact point for members of the community should they have concerns during the development implementation period</p> <p>Will liaise with the Construction Manager and communicate information and update communities where necessary, and gather information to respond to community questions</p> <p>To maintain a record of contacts received and how any issues raised have been responded to</p>
Construction Environmental Manager / Advisor	<p>The Construction Environmental Manager / Advisor is responsible for ensuring the project complies with all environmental legislation, consents, objectives, targets and other environmental commitments identified throughout construction.</p> <p>Duties associated with this role include:</p> <ul style="list-style-type: none"> • Preparing the detailed CEMP and associated documentation, including construction method statements, work instructions and other procedures where they relate to environment. • Ensuring all required consents/licences are in place prior to work commencing on site. • Providing toolbox talks and environmental inductions to all staff involved in the construction phase. • Undertaking daily site inspections to monitor compliance with the environmental licences/consents for the works, ensure that identified and appropriate control measures are effective and ensure compliance with the detailed CEMP. • Providing advice and liaise with construction teams to ensure that environmental risks are identified and appropriate controls developed on site. • Acting as the main point of contact between the regulatory authorities and the project on environmental issues. • Dealing with community queries and correspondence on environmental issues. • Implementing follow-up corrective actions to ensure compliance with UK regulations and legislation.

Roles

Responsibilities and accountabilities

- Reviewing and approving of method statements and any changes to the detailed CEMP in consultation with the Client's Project Manager and the appropriate statutory bodies.
- Maintaining and updating the detailed CEMP during the works.
- Keeping records of all activities on site, environmental problems identified; transgressions noted and a schedule of all tasks undertaken.
- Responding to environmental incidents.

All Site Staff (including subcontractors)

All Site Staff (including subcontractors) are responsible for receiving general environmental awareness training and working in accordance with Method Statements and toolbox talks. Only trained personnel are to manage particular tasks such as refuelling plant and equipment, managing stores, water quality monitoring and supervising the segregation and collection of waste.

The responsibilities of all staff on site throughout the construction of the works will include the following:

Participating in environmental awareness training;

- Adhering to all environmental policies, procedures and rules as set out in the detailed CEMP.
- Adhering to legislation, codes of practice, guidance notes relevant to their work.
- Determining and implementing good environmental methods of working as set out in the detailed CEMP.
- Organising work to be carried out to the required standard with minimum risk to the environment.
- Receiving instructions on their responsibilities to ensure correct environmental practice in line with the detailed CEMP.
- Reporting environmental incidents immediately to the Construction Manager (who is responsible for advising the Client's Project Manager and ensuring that corrective actions are completed).

3.3 Environmental Obligations and Legislation

3.3.1 The detailed CEMP will include, or reference, the legal and other environmental obligations relevant to the Principal Contractor's activities. These may include:

- Environmental legislation;
- Commitments made to regulatory bodies (e.g. Environment Agency, Natural England, Marine Management Organisation);
- Planning conditions made by North Lincolnshire Council and East Riding of Yorkshire Council;
- Other licences and consents and associated conditions required for the Proposed Development; and
- Commitments made to stakeholders and local residents.

3.4 Considerate Contractors Scheme

3.4.1 The Principal Contractor is required to manage the construction site accordingly and achieve formal certification under the Considerate Constructors Scheme (CCS), operated by the Construction Federation. The Principal Contractor will be required to achieve a minimum score (seven out of ten) for each of the five categories (Care about appearance, Respect the Community, Protect the Environment, Secure everyone's safety, and Value their workforce).

3.5 Environmental Auditing

3.5.1 The Principal Contractor will set out an audit plan for compliance with the detailed CEMP, for example auditing in compliance with ISO 14001:2015. The implementation of the detailed CEMP will be audited at agreed intervals (to be confirmed within the detailed CEMP) during the construction period. Records of these audits will be documented and maintained throughout the duration of the project.

3.6 Environmental inspections

3.6.1 Work areas will be inspected weekly by members of the site team and monthly during Health & Safety advisor visits, with an inspection list to be agreed and included in the detailed CEMP. Completed inspections will be reviewed by the Construction Manager with follow-up actions addressed and checked during subsequent inspections.

3.7 Environmental Monitoring

3.7.1 During the works required monitoring will include, as a minimum, the activities associated with trial HDD and general activities at the construction site. HDD works typically require additional monitoring activities related to surface spills or leaks associated with drilling fluid (comprising of mixed bentonite slurry) and ground settlement or heave (especially where the HDD bore alignment may cross sensitive infrastructure on the surface). Proposed monitoring may include the following (to be confirmed in the detailed CEMP);

- Routine environmental inspections;
- Environmental incidents;
- Daily monitoring for noise, vibration and dust;
- Oil or fuel spills from equipment;
- Drilling fluid surface spills or leaks;
- Ground settlement or heave;
- Existing infrastructure (e.g. utilities, pipelines etc.);
- Condition of site access roads and compound hardstanding;
- Condition of public highways as set out in the Outline Construction Traffic Management Plan (CTMP);
- Construction traffic including agreed haul routes and vehicle numbers;
- Communication and complaints process for logging and managing community concerns;
- Waste and excavated material arisings, reuse on site, disposal, materials recycled content (apart from drilling fluid spill/mixed bentonite slurry);
- Energy consumption;
- Management of Public Rights of Way (PRoW)
- Condition monitoring of Skitter Bridge on the south side;
- Supervision for vegetation clearance;
- Topsoil stockpiles;
- Ecological monitoring during establishment of the sites;
- Archaeological monitoring during establishment of the sites; and
- Water usage.

3.7.2 Monitoring results will be recorded in real time and made available if requested, including details of any required remedial actions. Arrangements will be put in place to investigate and provide reports on any potential or actual significant pollution incidents, including, as appropriate:

- A description of the pollution incident, including its location (and Ordnance Survey ('OS') grid reference).

- The type and quantity of contaminant and the likely receptors.
- Contributory causes and adverse effects.
- Mitigation measures implemented.
- Any recommendations to reduce the risk of incidents occurring.

3.8 Environmental Reporting

3.8.1 A regular report will be produced recording the monitoring results as detailed in Section 3.7. The frequency of reporting will be agreed with North Lincolnshire Council and East Riding of Yorkshire Council. The report will record monitoring results, highlight any exceedances above pre-determined trigger levels, and record any actions that were taken. The report will also record any complaints that were received and how these were dealt with. All complaints and mitigations are to be discussed with the Applicant.

3.9 Non-Conformance

3.9.1 The implementation of the detailed CEMP will be audited by the Construction Environmental Manager at agreed intervals during the construction period. Control procedures will be recorded in a Non-Conformance Report. Corrective actions will be implemented to ensure that future non-conformance does not occur. Two registers will be set up prior to construction as follows:

- Non-Conformance & Corrective Action Register (which forms part of the Quality Procedures and is not exclusively for environmental issues).
- Environmental Incidents Register.

3.9.2 The Non-Conformance & Corrective Action Register will detail:

- The date the non-conformance was identified.
- A description of the non-conformance.
- The implications of the non-conformance in terms of environmental impacts.
- A description of the elements of the environment affected by the impact (receptors).
- The corrective actions aimed at addressing the non-conformance.
- The persons responsible for implementing corrective actions.
- The timeframe for implementation of corrective actions.

3.9.3 The Environmental Incidents Register will detail:

- The date of the environmental incident.
- A description of the environmental incident situation.

- The impact of the environmental incidents.
- A description of the elements of the environment which have been subjected to impacts caused by environmental incidents (receptors).
- The actions to be implemented in response to the environmental incident.
- The person responsible for undertaking actions.
- The timeframe for implementing actions.

3.10 Environmental Risk Management

3.10.1 The environmental aspects of the works will be assessed for significance using an environmental risk register. This forms part of the project risk register and will define specific intentions and objectives to ensure that continuous improvements in environmental performance are achieved. The project risk register includes items related to environmental risk and is regularly updated.

3.11 Licences and Consents

3.11.1 Any licences or consents required during construction will be provided in the detailed CEMP.

3.12 Environmental Targets and Objectives

3.12.1 Specific environmental targets and objectives will be developed and agreed between the Client and the Principal Contractor. These include environmental, social and sustainability targets and key performance indicators (“KPIs”), such as targets for re-using and recycling waste on site.

3.12.2 The detailed CEMP will set out the final agreed objectives and will include a programme of actions to achieve the project’s environmental targets and objectives. Progress towards these will be monitored, measured and reported to the Client by the Principal Contractor monthly.

3.13 Environmental Training Requirements

3.13.1 The Principal Contractor is responsible for identifying the training needs of site staff to enable appropriate training to be provided and will engage suitably qualified and experienced professionals for this purpose. The training will include relevant site briefings and toolbox talks to equip site staff with the necessary knowledge of health, safety (including driving safety), community relations and environmental management, and an ability to follow environmental

control measures and to advise employees of changing circumstances as work progresses.

3.13.2 Suitable induction training and on-going programmes of environmental training will, as a minimum, include:

- Importance and relevance of the detailed CEMP and adequate knowledge of its implementation/compliance.
- Roles and responsibilities in relation to compliance with consents and designations, permits and operating procedures.
- Location of sensitive receptors and areas of high environmental value.
- Familiarisation with site environmental controls.
- Spill response and emergency procedures.
- Management Plan with respect to the drilling fluid, its storage and disposal.
- Hazard and risk management to ensure personnel understand the potential impacts and proposed mitigation measures.
- Community complaints management procedure.

3.13.3 Toolbox talks are provided for delivery to the workforce including sub-contractors covering specific topics such as working near water, ecological sensitive areas, protected species, waste management, spill control, drill fluid storage and disposal and topsoil management. Toolbox talks will be delivered when seasonally appropriate (e.g. nesting birds in early Spring) and those specific to the site will be developed and included in the detailed CEMP.

4 Site Operations

4.1 Construction Programme

4.1.1 All works proposed as part of the Trial HDD is scheduled to commence in the second quarter of 2026 and to be completed in the second quarter 2027.

4.2 Hours of Work

4.2.1 During the site preparation, equipment mobilisation, equipment demobilisation, and site reinstatement works, typical working hours are expected to be;

- 08:00hrs – 18:00hrs Monday to Friday.
- 08:00hrs – 13:00hrs Saturday.
- HGV movements or installation of equipment will not be permitted outside of these hours during construction phase unless agreed in writing with North Lincolnshire Council and East Riding of Yorkshire Council.

4.2.2 No mobilisation, clearance, construction, reinstatement and demobilisation works are permitted on Sundays and Bank Holidays unless agreed in writing with North Lincolnshire Council and East Riding of Yorkshire Council.

4.2.3 During the drilling period, working hours would be extended to 24 hours a day depending on the specific stage of drilling and ground conditions being drilled through. This would result in continuous 24 hour working for the duration of the drilling

4.3 Construction Plant

4.3.1 The following non-exhaustive list details the construction plant that is expected to be utilised on site and will be updated in the detailed CEMP:

- 360 excavators;
- Bulldozers;
- Dumpers;
- Forklifts/telehandlers;
- Lighting towers;
- Generators;
- HDD rig;
- HDD mud pumps;
- Other pumps, e.g dewatering if required;

- HDD power packs;
- HDD water treatment and recycling units;
- Mixing and separation plant;
- Centrifuges;
- Cranes;
- Hydraulic jacking frames;
- Tippers;
- Store cabins;
- Sheet piling equipment;
- Truck mounted HIABs; and
- Water tanks.

4.4 Site Layout

4.4.1 Two temporary compound locations are proposed either side of the Humber River and a location plan and site layout plan will be provided in the detailed CEMP. As far as reasonably practicable and appropriate, the site layouts and appearances will be designed using the following principles:

- Screening of the compounds where necessary.
- Securing of the compounds to prevent unauthorised entry.
- Identifying underground services/utilities and existing land drains and appropriate protection or diversion measures.
- Any proposed security cameras will be sited and directed so that they do not intrude into occupied land or properties.
- Storage areas, fixed plant and machinery equipment and temporary offices will be appropriately located to limit environmental impacts and having due regard to neighbouring accommodation, as far as allowed by the constraints of the site.
- Site lighting will be located and directed so as not to intrude on to sensitive receptors or constitute a road hazard.
- Site facilities will be powered from mains electrical sources, where practicable, but where not practicable temporary power via generators will be appropriately designed to minimise impacts from noise and spills.
- Topsoil to be stripped within the construction compound footprint (around approximately 0.5m depth) and will be stored in dedicated storage areas and the topsoil mounds limited to approved heights and slope angles. Management of soil during the construction period is contained within the Outline Soils Management Plan.
- Retention ponds will be formed from the underlying subsoil material and built in accordance with approved designs. Fluid storage retention ponds

may be lined with an impermeable lining to prevent loss of fluids to the underlying soil layers.

- Works to be contained within the boundaries identified in the relevant consents and licences.

4.4.2 Prior to the Proposed Development commencing, the Principal Contractor will allow for:

- The parking of vehicles of site operatives and visitors.
- Loading and unloading of plant and materials.
- Storage of plant and materials used during the Proposed Development.
- Wheel washing facilities where required.
- Measures to control the emission of dust and dirt during the Proposed Development.
- Preconstruction activities related to the Trial HDD including demarcating areas for the retention ponds, hardstanding areas, the drill site.
- Review of site access routes within the Outline CTMP for construction vehicles, tankers.
- The undertaking of any pre-commencement surveys including, but not limited to, ecology checks/walkovers, conditions surveys of access routes and Skitter Bridge.
- Implementation of mitigation measures agreed through consents/licences.
- A scheme for recycling/disposing of waste resulting from demolition and construction works.

Compound Offices / Welfare

4.4.3 The Proposed Development will require the establishment of two temporary construction compounds to accept material deliveries, provide storage for materials, water, tools, plant and equipment, provide office and welfare facilities for workers and a base for vehicle recovery, also to carry out the drill. The temporary compounds will be located around the drill site. The detailed CEMP will include a plan of the proposed construction compound layout that will include;

- Installation of temporary site offices, welfare facilities, internal fencing/barriers and site lighting.
- Equipment required on site for installation of an HDD rig anchor will involve sheet piling equipment mobilised for a short duration to the site.
- Identification of areas for rig anchorage, retention ponds for clean water and slurry, separation pit, topsoil storage areas.

- Within the construction compound area, hardstanding areas will be prepared using suitable material which will be spread and compacted using approved methods.

Site Security and Signage

- 4.4.4 The Principal Contractor has a statutory duty to prevent unauthorised access to the site. Site specific assessments of the security and trespass risk will be undertaken, and appropriate control measures implemented and included in the detailed CEMP.
- 4.4.5 Security operations will be developed and implemented in accordance with the latest British Standards applicable to the Security Industry i.e., BS 7858:1996 and BS 7499:1998; and full compliance with the Private Security Industry Act 2001. The general security of the site falls into two main categories:
- Maintaining a secure perimeter.
 - Preventing unauthorised access.
- 4.4.6 Measures implemented by the Principal Contractor to prevent unauthorised access to the site may include:
- Use of anti-climb perimeter fencing where necessary for site security and public safety and in compliance with any consents.
 - Fencing and gates will be covered with an opaque covering to provide screening to the temporary compounds.
 - Where reasonably practicable existing walls, fences, hedges and earth banks will be retained.
 - Notices will be displayed on all site boundaries to warn of hazards on site such as deep excavations, construction access, etc.
 - Use of temporary fences in certain areas, such as for short term occupation of sites.
 - Temporary lighting at site perimeters (security standards and illumination);
 - Security guards and patrols where necessary.
 - Potential CCTV and infrared surveillance, computerised access control systems and alarm systems where required.
 - Consultation with neighbours on site security matters.
 - Consultation with local crime prevention officers on security proposals for each site with regular liaison to review security effectiveness and response to incidents.
 - Immobilisation of plant out of hours, removing or securing hazardous materials from site, securing fuel storage containers, and preventing

unauthorised use of scaffolding to gain access to restricted areas and neighbouring properties.

4.4.7 Robust signage will be placed at strategic locations to ensure pedestrian, and site personnel are made aware of high-risk areas. The signage will highlight the following aspects:

- Live construction areas (areas which have probability of being struck-by and caught-in hazards from mechanical moving parts, as well as electrocution, fire and explosions from damaging electric and gas lines/utilities).
- Directional signage.
- Lifting operations etc.
- PPE working area and safe zones.
- Emergency exits.
- Storage areas.
- Logistics board showing site access and egress routes (updated as construction progresses).
- No Crossing Zones.

Construction Materials

4.4.8 The construction materials required will likely be those normally associated with a development of this nature and will be listed in the detailed CEMP. Where feasible, materials will be sourced locally. Any chemicals, liquids or other substances should be listed. Bentonite and any other substances should be free from Per- and polyfluoroalkyl substances (PFAS) coatings. Any substances with the potential to enter marine, surface water or groundwater sources should be listed out with relevant controls and verification that they are suitable for use in a marine environment. Substances should be checked against the Oslo and Paris Conventions (OSPAR) Commission List of Substances of Possible Concern.

Storage of Materials

4.4.9 Secure, hard-standing space will be designated alongside loading and unloading areas for the initial storage of plant and materials. Where required, additional localised storage areas will be introduced, in line with the phasing of the development, to reduce the movement of plant and materials around the site.

4.4.10 All hazardous substances (including liquids and solids) will be stored within secure, impermeable, bunded areas, protected from the rain, to remove the risk

of migration to groundwater or a nearby watercourse. The measures proposed will reduce the risk of contaminants and suspended solids to migrating to surface and groundwater and protect water quality and the ecosystems that the water resources support.

5 Environmental Control Measures

5.1 General Arrangements

5.1.1 Copies of the following documents will be held on site at all times:

- Planning approval including any planning conditions.
- The detailed CEMP.
- Any licences, other consents and associated conditions, as required.
- Construction Traffic Management Plan.
- Community Engagement and Communication Plan.
- The pollution spillage response plans and all site emergency procedures.
- Staff training records.

5.1.2 To reduce the likelihood of either an environmental incident or nuisance occurring the following measures will be used, where relevant:

- Prohibition of open fires, and a requirement to take preventative measures to reduce the likelihood of fires (electrocution, fire and explosions from damaging underground electric and gas lines due to HDD activity).
- Removal or stopping and sealing of drains and sewers taken out of use.
- No discharge of site runoff to ditches, watercourses, drains, sewers or soakaways without consultation with the appropriate authority.
- Maintenance of wheel washing facilities or other containment measures.
- Provision of dust suppression facilities where required.
- Location of storage, machinery, equipment and temporary buildings to reduce environmental effects and where practicable, outside flood risk areas.
- Use of modern well-maintained plant and equipment.
- The use of modern specification noise alarms that meet the particular safety requirements of the site, such as broadband reversing warnings, or proximity sensors to reduce the requirement for traditional reversing alarms.
- Controls on lighting/illumination to reduce visual intrusion or any adverse effect on sensitive ecology.
- The location of site welfare and or offices.
- Containing and limiting visual intrusion of construction sites, as far as reasonably practicable.
- Provision of maps showing sensitive areas and buffer zones where no pollutants are to be stored or use.

- Where reasonably practicable, maintenance of public rights of way (including diversions) for pedestrians, cyclists and equestrians affected by the Proposed Development, including reasonable adjustments to maintain or achieve inclusive access.
- Adequate welfare facilities for staff.
- Smoking areas at site offices/compounds or work sites equipped with containers for smoking wastes - these will not be located at the boundary of working areas or adjacent to neighbouring land.

5.1.3 In addition to the general measures for the construction site set out above, the following additional restrictions are placed on specific compound sites:

- Use of one-way systems within compound areas to minimise reversing noise.
- Inductions/briefing for all personnel to include specific consideration of working in compounds while minimising disturbance to adjacent sensitive receptors.
- Agreement of fencing provision at each compound with North Lincolnshire Council and East Riding of Yorkshire Council giving consideration to sensitive receptors.

5.1.4 Prior to the commencement of construction full details of all plant to be used, including manufacturers' specifications, will be discussed with the relevant local authorities.

5.2 Emergency Procedures

Dealing with Spills

5.2.1 There is a risk of contaminants such as hydrocarbons being introduced to the environment through leakage or spillage from storage, vehicles, plant and machinery (e.g. during refuelling) and the storage and disposal of wastewater & bentonite slurry. The Principal Contractor will adhere to industry standard best practice measures to minimise this risk, including the following:

- Refuelling of plant and vehicles on site will be undertaken in a designated area away from drains with the use of drip trays under pump.
- A spillage kit with sand, earth or commercial products that are approved for stored materials will be kept on site close to the storage area; training will be provided to staff on site on how to use and dispose of these correctly.
- In the event of a spillage on-site, the material will be contained (using an absorbent material such as sand or soil or commercially available booms).

Sorbents will be used to soak up a spill and stop it spreading on hard surfaces. Using sorbents generates waste and this method will only be used on small spills, or where a spill has been contained to stop further spread. All used sorbents will be disposed of at an accredited site for disposal.

- If it is not possible to stop the spill at source, significant attempts will be made to stop it as close to the source as possible. If possible, the spilling material will be safely moved into another container to limit the size of the spill. Use of a suitable container and pump may be required.
- Fuel, oil and chemicals will be stored in secondary containment and located a minimum of 10m from any water course.
- Any storage of Oil will be compliant with the Control of Pollution (Oil Storage) (England) Regulations 2001. These regulations apply to the storage of any volume of any kind of oil, more prescriptive requirements applying to industrial, commercial and institutional sites storing over 200 litres of oil.

Fire Protection and Control

- 5.2.2 The Principal Contractor will ensure that appropriate plans and management controls are in place for all construction sites, associated welfare buildings, and health and safety welfare facilities, with the aim of preventing fires.

Unexploded Ordnance

- 5.2.3 The Principal Contractor will prepare an emergency response procedure in accordance with Unexploded Ordnance, A guide for the construction industry CIRIA C681 (CIRIA, 2009) as part of the detailed CEMP, to be implemented by the Principal Contractor in response to any discovery of UXO. This emergency response procedure will include notifications to the relevant local authorities and emergency services.

COSHH

- 5.2.4 The Principal Contractor will produce and maintain a Control of Substances Hazardous to Health (COSHH) inventory and method statement setting out the process for preferentially selecting chemical products with lower health and environmental impacts subject to performance needs.

Existing Utilities

- 5.2.5 The Principal Contractor will produce and maintain an Existing Utilities Management Plan ensuring appropriate controls are in place should any emergencies relating to utilities on site arise during construction.

- 5.2.6 With regard to HDD activity, the Principal Contractor should ensure:
- Visual inspection of the entire planned digging path for structures that indicate potential underground utilities, like gas meters and manhole covers.
 - Review drawings, whenever possible, to verify underground utility locations.
 - Compare findings with surface markings to identify any missed utility.

5.3 Earthworks and Soil Management

5.3.1 The principal aim of an earthwork strategy is to identify areas of the project site that will be necessary to prepare any earthworks prior to development (retention ponds for storing water & slurry). It is proposed that excavated material will be re-used within the project.

5.3.2 An Outline Soil Management Plan (SMP) has been prepared to support the planning application. All soil excavated on site will be stored, protected and managed in line with the outline and final versions of the SMP.

5.4 Construction Traffic

5.4.1 A Construction Traffic Management Plan (CTMP) will be implemented by the Principal Contractor prior to the commencement of all phases of works, to minimise the effects of road traffic during the construction phase. An Outline CTMP has been developed and submitted as part of the planning application. The Outline CTMP incorporates:

- Identification of appropriate safe routes for traffic (existing and temporary access roads) to and from the Site.
- Proposed haul routes on site and access and egress points.
- Utilisation of raw materials from local sources to reduce the vehicular traffic impact.
- Encouragement of car sharing, walking, cycling or travel via public transport for staff travelling to site via a construction workforce travel plan.
- Provision of full staff welfare facilities provided as part of the compound construction to reduce the requirement to travel off-site on lunch breaks and encourage sustainable travel.
- Frequent inspections and monitoring to confirm the required measures will be implemented.

- Designated and adequate onsite parking facilities for site workers who travel by car, or other vehicles, to ensure that vehicles are not parked on the highway.
- Implementation of cleaning measures, such as wheel washing or wash-down facilities, which will serve to minimise the spread of dust, mud and other materials on to the roads.
- Control of dirt and dust on public highways via regular sweeping of roads will be undertaken, both on and off the Site.

5.4.2 Where possible traffic movements associated with the Proposed Development will be timed to avoid school drop off and collection times.

Public Access During Construction

5.4.3 There are public rights of way (PRoW) present running along the flood embankments on both the north and south side of the River Humber. On the South side, the exit track to Skitter Road from the southern compound crosses Skitter Bridge, forms part of the PROW.

5.4.4 No PROW are proposed to be closed or diverted during construction, however, it is acknowledged that there may be occasions where public access may be temporarily restricted for very short periods along construction routes. Where access will be restricted, this will be done so in consultation with the local planning authorities and appropriate management will be put in place to mitigate the impacts of the PROW users, to be included in the detailed CEMP.

5.5 Air Quality Management

5.5.1 Construction activities such as, excavation, ground works, drilling, cutting, construction and storage of materials have the potential to result in fugitive dust emissions throughout the construction phase. Vehicle movements both on-site and on the local road network also have the potential to result in the re-suspension of dust from highway surfaces.

5.5.2 **Appendix A** contains outline activities to manage dust on site during construction and will be updated for the detailed CEMP.

5.6 Noise and Vibration Management Plan

5.6.1 The Proposed Development will potentially introduce additional sources of noise and vibration such as construction work (machine movements,

generators, sheet piling) and operation of construction traffic, plant and equipment.

- 5.6.2 **Appendix B** contains outline proposals to manage noise and vibration during construction and will be updated for the detailed CEMP. Monitoring of noise and vibration should be undertaken for drilling and sheet piling works activities as a minimum. A scheme for monitoring noise should be included in the detailed CEMP.

5.7 Water Resources and Flood Risk

- 5.7.1 The Proposed Development has the potential to impact water quality in watercourses through sediment runoff, surface runoff, accidental spills of oils, chemicals, cement and fuels and movement of water required to undertake the works. **Appendix C** contains mitigation measures to be incorporated into the detailed CEMP to mitigate and/or minimise potential impacts on water resources and flooding risk. The following details should be included in a detailed CEMP under the advice of a suitable complement groundwater specialist:

- A Groundwater Management Plan will be developed by the Contractor to address risks to Groundwater.
- Details of drilling fluids and any corresponding data sheets.
- A drilling fluid management plan including a Frac-Out Plan which will outline procedures for preventing, containing and cleaning up inadvertent fluid returns during drilling.
- Sheet piling Risk Assessment for all piling activities.
- Procedure for managing artesian groundwater should it be encountered
- Dewatering procedures and controls.

5.8 Ecology and Biodiversity

- 5.8.1 The Principal Contractor will prepare and implement an Ecological Mitigation and Management Strategy (EMMS) and will include measures to manage the risk of adversely affecting flora and fauna on and within the vicinity of the site. The Site has statutory designated sites (Humber estuary SSSI, SAC, SPA, Ramsar site) & non statutory designated sites, priority areas in the vicinity. The document will include method statements in the event protected species are encountered and how potential ecological watching briefs or additional survey requirements would be accommodated in the programme. The EMMS will also include instruction on the following;

- Briefing all personnel involved in the construction works on the ecological mitigation strategy and relevant wildlife legislation.
- Risk of pollution incidents will be reduced by adhering to current Natural England guidelines.
- Impact Risk Zones (IRZ) associated with the Humber Estuary SSSI extends over the site- Natural England's advice on the nature of the potential impacts of pipelines and underground cables on these sites to be adhered to.
- Zones for soil or storage of materials associated with the development will be clearly defined.
- Fuel, oil and other chemicals will be stored in appropriate impervious containers. Leaking and empty containers will be removed from the Site immediately.
- Any trenches/pits created during the construction process will either be covered over at night or will include a means of escape to prevent animals becoming trapped in them.
- Any new or temporary lighting scheme implemented on the site will follow Bat Conservation Trust advice on wildlife sensitive lighting.

5.8.2 The Principal Contractor is required to ensure that all existing features of ecological value surrounding the Site boundary are adequately protected from damage during clearance, site preparation and construction activities.

5.8.3 The Principal Contractor may nominate an internal 'Biodiversity Champion' to influence site activities and ensure that detrimental impacts on biodiversity surrounding the site are minimised in line with the recommendations of a suitably qualified ecologist.

5.8.4 The Principal Contractor must train the site workforce on how to protect ecological receptors identified within and adjacent to the site during the project. Specific training must be carried out for the entire site workforce to ensure they are aware of how to avoid damaging ecology during operations on site. Training should be based on the findings and recommendations for protection of ecological features highlighted within a report prepared by a suitably qualified ecologist.

5.8.5 The Principal Contractor will record actions taken to protect biodiversity and monitor their effectiveness throughout key stages of the construction process. The requirement commits the Principal Contractor to make such records available where publicly requested. Any ecological mitigation suggested as a result of further ecological surveys will be included in the detailed CEMP.

5.9 Landscape and Visual Impacts

- 5.9.1 The Proposed Development is likely to impact visual amenity for some residents located adjacent to or overlooking the site. **Appendix D** contains mitigation measures to be incorporated into the detailed CEMP to mitigate and/or minimise potential impacts on landscape and visual amenity.

5.10 Ground Conditions and Soils

- 5.10.1 Appropriate management plans for ground conditions and / or any ground contamination that may be present on site will be included in the detailed CEMP if required. This should include a Discovery Procedure detailing procedures that would be followed in the event of unexpected contamination being discovered or occurrences of contamination being witnessed on site.
- 5.10.2 The Proposed Development has the potential to impact soils as they are stripped, handled and reinstated. **Appendix E** includes the outline mitigation measures which will be fully detailed in a Soil Management Plan (which will be developed from the outline Soil Management Plan) to minimise impacts on soils.

5.11 Heritage

- 5.11.1 The detailed CEMP will include appropriate heritage mitigation measures to minimise impacts on any identified local heritage and associated archaeological assets.

5.12 Site Waste Management

- 5.12.1 All site waste generated by the construction works will be stored, handled, and transported in compliance with waste legislation. Waste will be segregated and stored securely in clearly labelled receptacles. Hazardous waste will be stored separately to avoid contamination. The site will be kept tidy, waste stored securely and removed regularly to prevent pests.
- 5.12.2 Surplus or waste materials may arise from either material imported to site or from those generated on site. HDD projects generate considerable quantity of liquid waste/drill waste including mud. The disposal of this waste will be discussed in the detailed CEMP. This section outlines the procedures that will be put in place by the Principal Contractor, to be detailed within the site-specific CPP, to:

- Ensure methodologies are adopted that prevent environmental impacts by the mishandling and storage of waste and in compliance with duty of care requirements.
- Manage Construction Demolition and Excavation (CD&E) materials generated at worksites in accordance with the waste hierarchy to prevent, reduce, re-use, recycle, recover, and dispose of materials and within the relevant regulatory controls.
- Ensure a Site Waste Management Plan is developed.

5.12.3 All marine waste generated during construction will be managed in compliance with applicable waste legislation. Waste will be segregated, securely stored in clearly labelled receptacles, and hazardous waste will be stored separately to avoid cross-contamination. The site will be kept tidy, and waste will be regularly removed to prevent pest attraction.

5.12.4 **Appendix E** contains mitigation measures to be incorporated into the detailed CEMP to mitigate and/or minimise potential impacts on waste generation.

6 Monitoring and Review

- 6.1.1 During the works monitoring and reviews will be undertaken by the Principal Contractor. Required monitoring will be detailed in the detailed CEMP and include monitoring such as:
- A general review of site activities and compliance with the CEMP. If conditions have changed or non-compliance is recorded this should be actioned within an agreed period depending upon the degree of variance.
 - Noise and vibration.
 - Dust.
 - Monitoring results will be recorded in real time and made available to North Lincolnshire Council and East Riding of Yorkshire Council including any required remedial actions.
- 6.1.2 A regular report will be produced by the Principal Contractor recording the monitoring results. The frequency of reporting will be agreed with North Lincolnshire Council and East Riding of Yorkshire Council. The report will record the results, highlight any exceedances above pre-determined trigger levels and record any actions that were taken. The report will also record any complaints that were received and how these were dealt with.

Internal Audit

- 6.1.3 The Principal Contractor will set out in the detailed CEMP an audit plan for reviewing compliance with requirements of the CEMP, for example regular audits and inspections of waste management.
- 6.1.4 The implementation of the CEMP will be audited at regular intervals to be determined during the construction period. Records of these audits will be documented and maintained throughout the duration of the project. The results of audits will be communicated to North Lincolnshire Council and East Riding of Yorkshire Council in project review meetings on a regular basis as set out in the CEMP.

Review

- 6.1.5 The Principal Contractor will periodically review its environmental management system with the objective of improving its overall environmental performance.
- 6.1.6 Reviews will evaluate the suitability, adequacy and effectiveness of the team's environmental performance and will focus upon:

- The results of internal audits and evaluations of compliance with applicable legal and other requirements.
- Communication from external interested parties including complaints.
- Status of corrective and preventative actions.
- Results of the evaluation of environmental aspects from planned or new developments.
- Changes in applicable statutory legislation, procedures and other requirements.
- Lessons learned from emergency situations and incidents.

7 Communication

7.1 Community and Stakeholder Liaison

7.1.1 During construction, a programme of effective and sustained communication is to be incorporated into the detailed CEMP. The Principal Contractor will notify North Lincolnshire Council and East Riding of Yorkshire Council, occupiers of nearby or affected properties, businesses and adjacent or affected parish councils a minimum of two weeks in advance of planned construction works that may affect them. Information included in the notifications will include, as appropriate:

- The location of the planned works.
- The activities to be carried out.
- The duration of the planned works and the periods within which works will be undertaken (i.e., whether during normal working hours, during the evening or overnight).
- The anticipated effects of the planned works.
- The measures to be implemented in line with the detailed CEMP to mitigate the impact of the planned works.
- Enquiries and complaints procedure.

7.1.2 Stakeholder communication is completed via the planning process and documents submitted as part of the planning application will be commented on by all stakeholders.

7.2 Internal Communication

7.2.1 Should updates be required to the CEMP or any of its associated appendices, it is the responsibility of the Principal Contractor to provide any proposed amendments. In addition, any environmental incidents or issues associated with the environmental monitoring throughout the works will also be communicated.

7.2.2 Regular internal project meetings will be held and include as a minimum:

- Prestart Safety and Environmental Induction Meeting (all sub-contractors).
- Site Safety and Environmental Meeting (all sub-contractors).

7.2.3 The Construction Environmental Manager will arrange regular site environmental meetings with the Site Supervisors and others as required. The purpose will be to:

- Continually assess compliance with environmental requirements.

- Determine liaison requirements with external authorities.
- Assess environmental competencies and training needs.
- Review environmental inspections and performance on site.
- Review the findings from internal and external environmental audits.
- Share best practice and accidents/near misses.

7.3 Complaints

7.3.1 The detailed CEMP will include details on dealing with enquiries and complaints from the public. During construction, the relevant contact number, email and website addresses for contacting the Principal Contractor will be displayed on signs around the construction site.

7.3.2 An enquiry and complaint handling system will be implemented by the Principal Contractor and include measures to:

- Log enquiries and complaints in a register.
- Deal with enquiries and complaints appropriately, recognising that they may be due to the effect of construction works on the interests of, and impacts on persons and their properties.
- Pass on the enquiry or complaint to the correct person for review and appropriate action if the person recording it cannot do so.
- Taking appropriate action and respond to enquiries or complaints, once approved by the Applicant.
- Outline the process to review enquiries and complaints regularly to assess the adequacy, efficiency and effectiveness of the enquiries and complaints system and the measures being taken to respond to any enquiries or complaints.

7.3.3 The extent of the action taken will depend on the nature of the complaint. All complaints will be investigated to establish the cause of the complaint and whether the works comply with the Proposed Development's environmental requirements and other relevant requirements such as legislation, standards and codes of practice.

Appendix A

Outline Air Quality Mitigation Measures

Dust Management

Best Practicable Means (BPM) will be used to ensure that dust does not cause nuisance and these controls will be incorporated into the detailed CEMP. Where dust is considered to be a risk during a specific site activity, a dust management plan will be prepared to include mitigation measures and task-specific method statement for the work. The controls listed in the detailed CEMP and method statements will be assessed on site to ensure they are adequately carried out and effective.

The controls will be briefed to the engineers and operatives to ensure they are aware of mitigation measures and controls to be employed, in compliance with relevant legislative requirements and statutory guidance.

Dust may be generated by any construction activity but is particularly an issue during the demolition and excavation phases. Mitigation measures can include:

- Early provision of hard surfaced haul routes and parking areas which are regularly damped down.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Dust suppression water points can be identified on site plans, kept serviceable throughout construction, and made known to the persons responsible for damping down.
- Damping down or covering stockpiles particularly during dry weather.
- Materials should be stored away from the site boundary.
- Avoiding of dry sweeping of large areas.
- Construction plant to be well maintained and operated to minimise emissions to air.
- Operatives to be briefed on good practice regarding dust and air quality control measures.
- Regular inspections of the site and haul routes to be carried out by the main contractor to ensure that BPM are employed across the project. All inspections will be recorded and any subsequent action in a site log book.
- Working areas and haul routes will be swept / cleaned regularly to prevent the build-up of materials and dust.
- Crushers and stockpiles will be located away from sensitive and exposed areas.
- Sheeting of lorries entering or leaving the site.
- Materials will be prefabricated and pre-cut off-site where possible to minimise dust from cutting and grinding activities.

- If necessary, 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.
- Burning of materials on site shall not be permitted.
- Wheel wash facilities will be used for all vehicles leaving site when site excavation and exposed ground is present. (Water and debris / silt from this operation will be collected and channelled to a suitable settlement system for treatment and disposal) and ensuring there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
- Neighbourhood liaison.
- Monitoring performance and responding to results.
- Access gates to be located at least 10m from receptors where possible.
- Use enclosed chutes and 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.
- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
- Avoid scabbling (roughening of concrete surfaces) if possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overflowing during delivery.
- For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.

Disturbing dust may be generated by any construction activity but is particularly an issue during piling, excavation, and concrete works. As well as those listed above, mitigation measures may include;

- Screening of works, e.g., buildings that are being demolished will be screened as will static concrete pumps.
- Monitoring levels and adjusting techniques as required.
- Materials not required for use will be removed from site as soon as possible for appropriate recycling and disposal to prevent stockpiles.

Vehicle Operation and Emissions

Vehicle emissions are regulated through the Road Vehicles (Construction and Use) (Amendment) Regulations 2020, the Motor Vehicles (Type Approval) (Great Britain)

Regulations 2009 made under the Road Traffic Act 1991, and The Non-Road Mobile Machinery (Emission of Gaseous and Particulate Matter) Regulations 2018.

The Principal Contractor will ensure that all plant and equipment, including any which may be on hire, is well maintained, properly silenced, and used in accordance with the manufacturer's instructions and BS 5228. All non-road mobile machinery (NRMM) is to use ultra-low sulphur tax-exempt diesel (ULSD) where available.

Particulate Matter (PM) emissions standards will be based upon engine emissions standards set in EU Directive 97/68/EC or such equivalent replacement applicable in the United Kingdom. The Principal Contractor will adhere to the relevant guidelines and provide information within their CPP on how they intend to comply with these guidelines.

To minimise emissions further from vehicles the following will be adhered to:

- Deliveries will be co-ordinated and booked in via a "delivery management process" to minimise waiting engines will be switched off when not in use and engines will not be left to idle.
- Plant will be well maintained to ensure it is running efficiently with maintenance records kept as evidence.
- The haulage fleet should include fuel efficient lorries fitted with catalytic converters.
- All diesel plant and machinery on site will run on ultra-low sulphur diesel.
- Parking on the surrounding roads for staff or operatives involved in the construction development will be actively discouraged.
- Ensure all vehicles switch off engines when stationary – no idling vehicles.
- Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
- Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas (if long haul routes are required, these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the Local Authority, where appropriate)
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Implement a Travel Plan as part of the Construction Traffic Management Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

Mud on Roads

If necessary, the wheel wash facility will be set up prior to construction commencing and will be inspected each and every working day to ensure it remains in an operational condition and is being used correctly. Any defects will be recorded, and actions taken to repair immediately.

Deposition of mud or other such materials on the highway is prohibited. Vehicles will be directed to use the wheel wash, when site conditions dictate its use and/or when the site management consider the use of the wheel wash will safeguard the condition of the highway outside the site.

The Principal Contactor will ensure that strict measures are taken to minimise mud on roads, which is one of the main environmental nuisance problems from construction sites (Highways Act 1980 ss.148-151 and the Environmental Protection Act 1990). In addition to measures listed in Dust Management, measures may include, but not necessarily be limited to:

- The provision of wheel washing facilities including, where practicable, mechanical wheel spinners.
- The use of an approved mechanical road sweeper to clean the site of hardstanding and any mud or debris deposited by the site vehicles on roads or footpaths in the vicinity of the site. The road sweeper is to be readily available whenever the need for cleaning arises and will be properly used and maintained.
- Measures should be taken to ensure that mud and detritus are not swept into gullies.

Communications

- Develop and implement a stakeholder engagement plan that includes community engagement before work commences on site.
- Display the name and contact details of person(s) accountable for air quality and dust issues on the Site boundary. This may be the environment manager/engineer or the site manager.
- Display the head or regional office contact information.
- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the Local Authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book.
- Hold regular liaison meetings with other high risk construction sites where necessary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary so that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the Site is active for an extensive period.
- Avoid site runoff of water or mud.

- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site, cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.

Monitoring

- Undertake daily on-site monitoring, where receptors (including roads) are nearby, to monitor dust, record inspection results and make the log available to North Lincolnshire Council and East Riding of Yorkshire Council when asked.
- Carry out regular site inspections to monitor compliance with this Dust Management Plan (DMP), record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

Appendix B

Outline Noise and Vibration Mitigation Measures

The Principal Contractor will be required to prepare noise and vibration mitigations for inclusion in the detailed CEMP which may include:

- Commitments for active control of construction noise and vibration including issues such as specific and detailed complaint procedures, community liaison, compliance survey requirements and a Risk based mitigation scheme to control noise and vibration on an ongoing basis. The measures set out must comply with the approved planning application details, any changes will need to be communicated and agreed with the Local Planning Authority in advance.
- Mitigation strategies formulated on the basis of 'Best Practicable Means'.
- Undertaking construction during the proposed working hours detailed in Section 4.2 of the OCEMP.
- Recommendations and good practice as detailed in BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites Part 1: Noise and Part 2: Vibration.
- Measures as set out in British Standard BS 5228 Code of practice for noise and vibration control on construction and open sites including:
 - Careful planning of methodology, programming of the works at less sensitive times and selection of plant to minimise adverse effects.
 - Selection of plant that conforms with relevant national or international standards, directives and recommendations on noise and vibration emissions.
 - Location of construction plant as far as reasonably practicable away from adjacent occupied buildings or as close as possible to noise barriers (comprising shipping containers where required in the north compound) where these are located between the plant and sensitive receptors.
 - Selection and location of generators so as to minimise adverse effects on the local community.
 - Fitting static and semi-static plant/equipment with suitable enclosures where practicable.
 - Instruction of personnel on best practicable means to reduce noise and vibration as part of induction training and prior to specific work activities.
 - Shut down of plant and vehicles when not in use, i.e. no idling plant.
 - Audible warning systems and alarms designed to minimise noise.
 - Broadband reverse alarms fitted to all vehicles.
 - Notification of local residents in advance of works commencing.
 - Use of localised mobile screening where reasonably practicable to reduce noise levels from handheld tools such as concrete saws.

- Implementation of appropriate construction traffic routing to minimise noise effects on sensitive receptors. Details of the routing of construction vehicles and visitors to the Site will be agreed with North Lincolnshire Council and East Riding of Yorkshire Council.
- All construction traffic entering and leaving the Site will be closely controlled. Vehicles making deliveries or removing material will travel via designated routes. Measures will be taken to review and reduce where possible the numbers of construction vehicles accessing the Site during peak hours, by adopting measures such as 'just in time' deliveries.

Appendix C

Outline Water Resources and Flood Risk Mitigation Measures

The Principal Contractor will be required to document best practice construction methodologies to ensure the quality of the water environment does not deteriorate during construction, such as those described in CIRIA C532 (CIRIA, 2001) and procedures for the management of environmental impacts during construction.

Examples include:

- Avoiding the storage of any potentially polluting materials in close proximity to any waterbodies, including stockpiles of soil, to reduce potential for sedimentation. Where this is not possible works will be undertaken in accordance with approved method statements and in accordance with environmental permitting requirements/restrictions in order to safeguard the water environment.
- Soil stripping managed to ensure the minimum area of exposed soil at any one time, avoiding excess runoff.
- Fuels and chemicals will be stored, and refuelling will take place within bunded areas to prevent leakage, and these will be located away from waterbodies. Drainage from these areas will incorporate an isolation facility such that the outlet could be sealed in the event of a spill.
- Provision made for water treatment to remove sediment before discharge to a surface water feature.
- Concrete will be laid only following the suitable preparation of the ground surface and temporary shuttering used to contain potential leaks.
- Designated washing out areas will be set up for concrete lorries with impermeable liners to protect the soil and groundwater below.
- Wastewater generated from the construction compound(s) will be disposed of via appropriate means, for example pumped out and removed from site by tanker.

The detailed CEMP will also detail protocols to be followed during an emergency pollution event, triggered for example by adverse weather conditions or an accidental spillage. Measures to be implemented to prevent pollutants infiltrating into the soils beneath the Site and reaching surface water receptors will be documented. Appropriate equipment (e.g. absorption mats) will also be made easily accessible on site to deal with accidental spillages and details of communication channels with the EA in the event of an accidental pollution incident will be included. Should any pollution incidents occur, the EA incident hotline (0800 80 70 60) will be called immediately in tandem with dealing with any spillages.

To promote the sustainable use of water resources during construction, measures will be implemented to promote general water use efficiency and particularly to reduce the use of potable water. Examples include rainwater harvesting to provide water supply for the

construction welfare facilities and for use in dust suppression and the collection of greywater for use in wheel washing facilities and leakage prevention.

Details of the water supply sources for the site should be identified in the detailed CEMP.

Appendix D

Outline Landscape and Visual Amenity Mitigation Measures

The detailed CEMP will document best practice construction methodologies and describe procedures for the management of environmental impacts during construction including a 'landscape and ecology management plan', to safeguard the visual amenity of visual receptors identified during the construction phase.

To ensure that adverse impacts of lighting associated with the construction are minimised, the following mitigation may be included in the detailed CEMP:

- No external lighting shall be installed until an assessment of the potential for light impact has been undertaken, submitted to and approved in writing by the Local Planning Authority. The assessment shall include:
 - Identification of sensitive receptors likely to be impacted upon by light nuisance, with a determination of the proposed scheme's compliance with the design guidance in the Institution of Lighting Professionals Document: Guidance Notes for the Reduction of Obtrusive Light.
 - A lighting scheme which proposes methods of mitigation against potential light nuisance, including potential glare and light spill, on sensitive receptors.
 - Once approved the agreed lighting scheme shall be implemented and permanently retained. Any deviation from the agreed lighting scheme shall require approval in writing by the Local Planning Authority.
- Use of only appropriately designed luminaires for the task at hand.
- Minimisation light break-out above the horizontal (using 'low cut-off' and 'full cut-off' lighting systems).
- Use of louvres and shields to prevent undesirable light break-out.
- Use of visual screening, such as onsite spoil, fencing, between more sensitive visual receptors and construction light sources.
- Reducing lighting levels outside working hours to suitable levels for safety and security. Lighting will be reduced when not required for safety purposes. Security lighting will be kept at the minimum level needed for visual and security protection.
- Use of automated devices to switch lights on and off according to activity / ambient light levels. If appropriate, to reduce the need for fixed visible lighting outside working hours, the use of infrared floodlighting and CCTV systems will be considered for security.
- Construction lighting will be directed so it does not intrude outside of the immediate working area. All lighting related to the works will be designed and fitted to minimise light intrusion onto any sensitive habitat such as hedgerows, mature trees and woodland.

- Sufficient lighting units used to avoid the need for tall, wide beam lighting units to illuminate large areas.
- Site levels are anticipated to be maintained as close to existing as possible. This will ensure that new ground levels do not adversely affect visual amenity or the landscape character of the area.

Appendix E

Outline Site Waste Management Plan

Waste management contractors removing waste from site will have a valid Waste Carriers Licence and waste management facilities receiving waste will hold a valid environmental permit or authorised exemption. All waste movements will be accompanied by a Waste Transfer Note or a Consignment Note for hazardous waste, to fulfil duty of care requirements.

In accordance with duty of care requirements, The Environmental Protection Act 1990 and Special Waste Regulations 1996, waste will be disposed of at a facility that is licenced to receive the waste type; only hauliers with a waste carrier registration will be used for transporting waste materials off site; consignment notes will be used and a transfer log will be held on site recording the materials that have been removed.

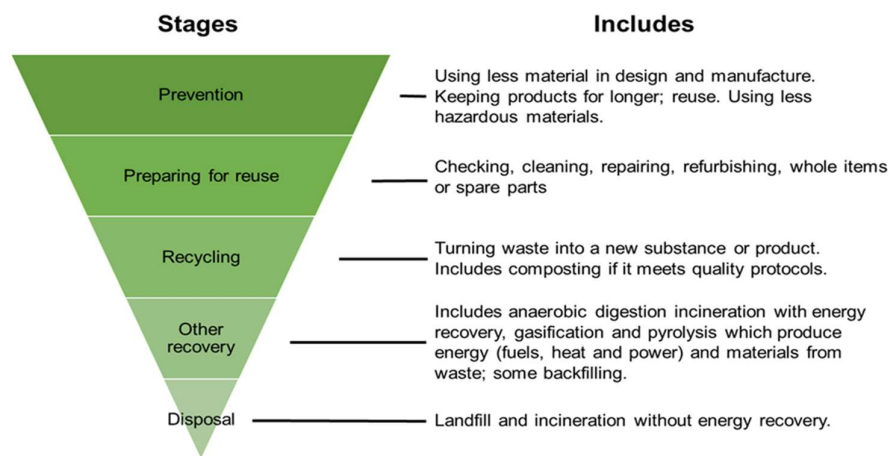


Figure A-1 – The Waste Hierarchy

Waste Management Controls

The Principal Contractor will:

- Write waste management procedures and communicate the procedures to all operatives during the site induction.
- Appoint a nominated individual who will oversee the implementation of the waste control on site.
- Establish a waste management area at the site to handle waste from demolition and construction activities. This will be designed to facilitate the segregation of key waste streams to maximise the opportunity to re-use, recycle and return wastes generated on site.
- Demarcate a specific area on the site (where possible) and label stockpiles and skips to facilitate the separation of materials. Recycling and waste bins/skips are to be kept

clean and will be clearly marked/colour coded in order to avoid contamination of materials.

- Provide appropriate shelter to prevent wastes such as cardboard and paper from deteriorating while being sorted or awaiting collection.
- Ensure that waste is stored and transported in a way that prevents its loss or escape, including the prevention of windblown debris.
- Consider whether waste exemptions or Environmental Permits are required to facilitate the storage and treatment of waste material within the development sites and obtain these in advance of the works where required. Ensure that all works are completed in line with the associated requirements.
- Ensure that the treatment and storage of waste materials do not give rise to nuisance (dust, litter etc.).
- Order construction materials prefabricated (where appropriate) and store all unused construction materials to minimise the potential for damage or wastage.
- Segregate demolition and excavated materials (e.g., soil and hard core) in piles for subsequent reuse on the site, where appropriate. If the soil or secondary aggregate material is contaminated then it will be kept separate from clean material and sent for either treatment, recycling, or recovery, where appropriate, or disposal at appropriately permitted facilities.
- Divert all vegetation waste from landfill, unless identified as an invasive species (e.g., Japanese Knotweed) and no other options are available. The greatest opportunity for the sustainable management of vegetation waste is through recycling into compost.
- Ensure that a registered waste carrier is used whenever waste material is removed from the site and that waste movements are co-ordinated through a Construction Logistics Plan (incorporated within the CPP).
- Identify appropriately permitted waste management and recycling facilities in close proximity to the site and ensure that the waste is sent only to facilities authorised to receive it. Off-site waste management will be in accordance with relevant legislation e.g., Waste (England and Wales) Regulations 2011.
- Reduce climate change and sustainability impacts from waste management where possible by encouraging waste to be managed close to its source (proximity principle), via sustainable forms of transport (where available) and in a way, which results in least environmental and social impact on the local area.
- Identify whether WRAP Quality Protocols, waste exemptions or Environmental Permits are required to enable the reuse of waste material on the source site. Obtain the relevant consents as required and ensure that all works are completed in line with the associated requirements.

The Principal Contractor will take reasonable steps to ensure security measures are in place to prevent the illegal deposition (fly tipping) of waste at the site and liaise with the relevant regulatory authority as appropriate.

As well as complying with its obligations under the Environmental Protection Act 1990 and Hazardous Waste (England & Wales) Regulations 2005 the project team will look to actively reduce waste through recycling and reuse of materials in line with the waste hierarchy.

Documentation

A written framework for checking and managing compliance with waste legislation and the duty of care requirements will be established. A Site Waste Management Plan (SWMP) will be developed for the site and incorporated into the site specific CPP (where required) and will be refined and updated by the Principal Contractor. The Principal Contractor will manage waste in accordance with the CPP.

Copies of the necessary Environmental Permits and Waste Carriers' Licences will be retained for 2 years, unless pertinent to hazardous waste management in which case they shall be retained for 3 years.

All waste movement records (Transfer Notes for non-hazardous waste and Consignment Notes for hazardous waste), must held on site as required by legislation. Such documentation must be maintained to be readily available for inspection at all times. Quarterly returns will be obtained for hazardous waste movements.

Hazardous Waste

If during site works and excavation activities any soils are classified as hazardous waste appropriate risk assessments and method statements will be implemented by the Principal Contractor. Any soil reused on site will be managed by the Principal Contractor. Any asbestos containing materials which cannot be reused will be disposed of off-site at a suitably permitted facility and all loads will be damped down and transported via sheeted lorries.

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