

**APPENDIX 5A: FRAMEWORK CONSTRUCTION ENVIRONMENTAL MANGEMENT  
PLAN (CEMP).**

# South Humber Bank Energy Centre

South Marsh Road, Grimsby, DN41 8BZ

**Appendix 5A: Framework Construction Environmental Management Plan (CEMP)**



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**DOCUMENT HISTORY**

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<b>Author</b>	Various		
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## 1.0 FRAMEWORK CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

### Introduction

- 1.1 This document presents a framework for the Construction Environmental Management Plan (CEMP). The detailed CEMP will be produced for the Proposed Development following the appointment of the construction contractor.
- 1.2 Potential impacts have been identified through the Environmental Impact Assessment (EIA) process and are reported in the Environmental Statement (ES) Volume I. A range of 'standard' or best practice mitigation and construction management measures were accounted for in the assessments presented within the ES and it is assumed these will be implemented during construction of the Proposed Development. This framework CEMP demonstrates how these commitments in the ES will be implemented. It also sets out the monitoring and auditing activities designed to demonstrate that such mitigation measures are carried out and that they are effective.

### Objectives of the Construction Environmental Management Plan

- 1.3 The overall objectives of the CEMP are as follows:
- to minimise the risk of any type of pollution incident or other form of unauthorised discharge;
  - to minimise any nuisance to sensitive receptors;
  - to maintain communication between the Client (Employer), the Project Manager and relevant third parties, with assignment of any specific and statutory reporting duties to third parties, where these are to remain their statutory duty; and
  - to be compliant with legislation and contract specifications.

### Purpose of the Framework Construction Environmental Management Plan

- 1.4 This document provides the likely structure of the CEMP, and indicates what additional information might be included under each sub-section within the final CEMP, which will be produced by the contractor selected to construct the Proposed Development.
- 1.5 This framework CEMP covers the principal construction activities envisaged at the time of the planning application. The detailed CEMP will be produced in line with this framework document and will be agreed with North East Lincolnshire Council (NELC) in advance of starting enabling works on Site, through discharge of a planning condition. The key elements of the CEMP will include:
- an overview of the Proposed Development and associated construction programme;
  - prior assessment of environmental impacts (through the EIA);
  - reduction of potential adverse impacts through design and other mitigation measures;
  - monitoring of effectiveness of mitigation measures;
  - corrective action procedure; and
  - links to other complementary plans and procedures.
- 1.6 In summary, the CEMP will identify how commitments made in the ES will be translated into actions on Site, including details such as the allocation of key roles and responsibilities.

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- 1.7 The Principal Contractor appointed by EP SHB Limited will be responsible for working in accordance with and regularly updating the environmental controls documented in the CEMP. However, the overall responsibility for implementation of the CEMP will lie with EP SHB Limited. It should be noted that EP SHB are the existing operator of South Humber Bank Power Station, on part of the Site, and therefore possess knowledge of current Site conditions.
- 1.8 The CEMP will be designed with the objective of compliance with the relevant environmental legislation and the mitigation measures set out within the ES. It should be read alongside any other environmental documents related to the construction phase.
- 1.9 Any additional construction licences, permits or approvals that are required will be listed in the detailed CEMP, including any environmental information submitted in respect of them.

### **Construction**

#### Programme

- 1.10 Table 5.1 within Chapter 5 in ES Volume I provides an indicative construction programme. The current expectation is that site preparation, construction and commissioning of the Proposed Development will take approximately three years.
- 1.11 Allowing sufficient time to receive planning consent and discharge any planning conditions, it is anticipated that the earliest that site preparation and enabling works on Site for the Proposed Development would start is Q3 2019, with an expected operational date in 2022.

#### Working Hours

- 1.12 Construction working hours will generally be 07:00 to 19:00 Monday to Saturday; however it is likely that some construction activities will be required to be 24 hours at certain times. This is principally construction activities that cannot be stopped, such as concrete slip forming. Commissioning activities may also need to be undertaken outside of normal working hours.
- 1.13 Where on Site works are to be conducted outside the core hours they will comply with the restrictions stated in this framework CEMP and any other restrictions agreed with the planning authority. Construction noise limits have been identified for nearby noise sensitive receptors during daytime, evening and night-time periods. Thus, where on Site works are to be conducted outside the core hours they will comply with any restrictions agreed with the planning authority, in particular regarding the control of noise and traffic. Compliance with these noise limits will ensure adverse effects are unlikely. Abnormal or emergency construction traffic movements may occur outside of normal working hours. In the event of these occurrences, specific noise mitigation measures will be put in place to reduce potential noise impacts at nearby noise sensitive receptors as set out below.

#### Parking Provisions and Off Site Facilities

- 1.14 The location and size of parking provisions on Site, access/ egress routes/ gates, loading and unloading areas for plant and materials, storage areas, wheel washing facilities and construction traffic management measures will be set out in the detailed CEMP. It will also include a description of any laydown or contractor accommodation areas.

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Traffic Routeing

- 1.15 The CEMP will provide details of the designated routes for HGV movements and worked car movements, with reference to the Construction Traffic Management Plan and Construction Worker Travel Plan.

Recycling and Disposing of Waste

- 1.16 Contractors will be required to adopt good practice in construction waste management which will reduce the quantity of waste generated.
- 1.17 In order to control the waste generated on Site during site preparation and construction, the Principal Contractor will separate the main waste streams on Site, prior to them being taken to a waste facility for recycling or disposal.
- 1.18 All waste to be removed from Site will be undertaken by registered waste carriers and taken to permitted waste facilities.

Best Practice Measures

- 1.19 The Considerate Constructors Scheme (CCS) will be adopted to assist in reducing pollution and nuisance from the Proposed Development, by employing best practice measures which go beyond statutory compliance.

**Complementary Plans and Procedures**

- 1.20 In addition to the CEMP, complementary environmental plans and procedures for the construction phase will be developed where required and specified in the planning conditions. These plans and procedures will build on the principles and procedures set out in this framework CEMP and will be cross referenced in the detailed CEMP.

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## 2.0 IMPLEMENTATION AND OPERATION

- 2.1 The detailed CEMP will include an organogram showing team roles, names and responsibilities, training requirements, communication methods, document control and environmental emergency procedures.

### **Role and Responsibilities**

- 2.2 The project team roles and responsibilities should be detailed for each role. A date and signature must be provided to ensure acceptance of responsibility.
- 2.3 All operatives involved in the construction phase, will be made aware of the CEMP and the need to implement it prior to them starting work on Site. The Principal Contractor's Site Manager will manage the implementation of the CEMP and its content will be communicated to all operatives during the induction and regular toolbox talks by the Site management team. The CEMP will be signed by key staff to ensure they have read and understood the details and responsibilities.

### **Legal Compliance**

- 2.4 There are a number of regulations relating to environmental issues that will be adhered to during the construction phase of the Proposed Development. In addition to such legislation, there is a range of 'Good Practice' guidance widely accepted by the construction industry that details practical advice on how construction sites should be managed to protect the surrounding environment.
- 2.5 The following overarching legislation must be adhered to during the Scheme construction phase:
- Environment Act 1995; and
  - Environmental Protection Act 1990.
- 2.6 The ES (Volume I) identifies the legislation and guidance that is relevant to each discipline. A full list of relevant legislation will be included in the detailed CEMP.

### **Reviewing CEMP Compliance**

#### Non-compliance and Corrective Actions

- 2.7 Non-compliances and corrective actions will typically be identified through the monitoring and measuring process and through incidents occurring during on Site activities. Non-compliances will use the standard ratings methodology of 'Major', 'Minor' and 'Observation' and will be included within the environmental reporting. Non-compliance will have an associated corrective action/ recommendation and a timeframe for closure.

#### Records and Documents

- 2.8 General document and record control will be undertaken in accordance with EP SHB procedures. This will include:
- project document control procedures;
  - risk assessments;
  - auditing compliance; and
  - project management compliance.



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- 2.9 All applicable consents, permits, permissions, licences and environmental surveys required and acquired prior to construction will be transposed into the detailed CEMP for reference and where applicable legal compliance.
  - 2.10 On completion of the contract, final versions of all relevant documents relating to the construction phase, including risk assessments, Environmental Management Plans and all documents that record environmental risks and mitigation measures will be submitted to relevant personnel.

### **Monitoring, Auditing and Reporting**

- 2.11 Monitoring is a vital process in ensuring the effectiveness of the CEMP, with any non-conformity against the CEMP and deficiencies in the CEMP being identified, investigated and remedied.
- 2.12 Should any deficiencies in the CEMP be identified, the CEMP will be updated to ensure the document continues to fulfil its objectives.
- 2.13 To ensure the CEMP remains up-to-date and relevant it will be updated via addenda by the Principal Contractor at least every six months during the construction process to incorporate changes in legislation, standards, plant, processes, etc.
- 2.14 Regular environmental audits of the construction works will be undertaken by the Principal Contractor, or by an external consultant appointed by the Principal Contractor, to ensure compliance with the CEMP. All audits will be documented in an Audit Report, a copy of which will be retained on Site for inspection.
- 2.15 A Non-Conformance Report will identify the non-conformance and the required corrective action.
- 2.16 Subsequent audits will be used to monitor the performance of the corrective action and then sign off the corrective action request once it has been successfully implemented. All completed Non-Conformance Reports will be held on Site in a designated file.

### **Management Review**

- 2.17 The CEMP will be signed off on completion of the construction works and will form the basis of the handover environmental management plan (HEMP).

### 3.0 MANAGEMENT AND MITIGATION PLAN

3.1 This section of the framework CEMP sets out the mitigation and management measures to be included as a minimum in the CEMP. It also illustrates how the monitoring strategy will be set out and the responsible party identified for each mitigation/enhancement measures or monitoring requirement.

**Table 3.1: Air Quality**

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Increased NO<sub>x</sub> and PM<sub>10</sub> from construction vehicle/plant emissions.</p> <p>Increased particulates and deposited dust from soil and spoil movements and handling.</p>	<p>Appropriate standards and Best Practicable Means will be included in the CEMP, which may include:</p> <ul style="list-style-type: none"> <li>• application of good practice dust management techniques;</li> <li>• maintaining and operating vehicle engines to achieve European and UK Emissions Standards;</li> <li>• avoiding roughening of concrete surfaces where possible;</li> <li>• storing sand and aggregates in bunded areas;</li> <li>• using water suppression to minimise dust formation;</li> <li>• using regular cleaning to minimise mud on road;</li> <li>• covering any potentially dusty loads of waste or spoil in vehicles leaving the Site; and</li> <li>• restricting the use of unmade roads and</li> </ul>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

<b>POTENTIAL IMPACT</b>	<b>MITIGATION/ ENHANCEMENT MEASURES</b>	<b>MONITORING REQUIREMENTS</b>	<b>RESPONSIBILITY</b>
	<p>employing wheel wash systems at Site exits.</p> <p>Best Practicable Means will also be employed for the siting and operation of non-road mobile machinery, to control associated emissions, including:</p> <ul style="list-style-type: none"> <li>• locating static plant and dust causing activities away from sensitive receptors where possible; and</li> <li>• minimising vehicle and plant idling.</li> </ul>		

**Table 3.2: Noise and Vibration**

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Noise effect due to construction activities at nearby noise sensitive receptors, including evening and night time periods.</p> <p>Construction Traffic Noise.</p> <p>Vibration due to construction activities.</p>	<p>Best Practicable Means will be used to minimise the noise impacts on surrounding sensitive receptors, and may include the following:</p> <ul style="list-style-type: none"> <li>• all construction plant and equipment will comply with EU noise emission limits;</li> <li>• proper use of plant with respect to minimising noise emissions – all vehicles and mechanical plant will be fitted with effective exhaust silencers and maintained in good efficient working order;</li> <li>• selection of inherently quiet plant where appropriate – for example and where practicable major compressors will be ‘sound reduced’ models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use, and ancillary pneumatic percussive tools fitted with mufflers or silencers of the type recommended by the manufacturers;</li> <li>• machines in intermittent use will be shut down in the intervening periods between work or throttled down to a minimum;</li> <li>• materials should be handled with care and be placed, not dropped. Materials should be delivered during standard working</li> </ul>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>hours where possible;</p> <ul style="list-style-type: none"> <li>• all ancillary plant such as generators, compressors and pumps will be positioned so as to cause minimum noise disturbance, i.e. furthest from receptors or behind close boarded noise barriers; if necessary, acoustic enclosures will be provided and/or acoustic shielding; and</li> <li>• construction contractors will be obliged to adhere to the codes of practice for construction working and piling given in BS 5228 and the guidance given therein minimising noise emissions from the Site.</li> </ul> <p><u>Piling</u></p> <p>Piling methods and/or piling working hours will be selected to prevent significant noise effects on adjacent waterbird habitat during the winter months (September to March inclusive).</p>		

**Table 3.3: Transport, Traffic and Access**

<b>POTENTIAL IMPACT</b>	<b>MITIGATION/ENHANCEMENT MEASURES</b>	<b>MONITORING REQUIREMENTS</b>	<b>RESPONSIBILITY</b>
<p>Increased traffic flows, including HGVs on the roads leading to the Site</p>	<p>Construction HGVs will be required to arrive and depart the Site towards the A180 via Hobson Way, Kiln Lane and the A1173.</p> <p>Implementation of a Construction Worker Travel Plan (CWTP) aimed at identifying measures and establishing procedures to encourage workers to ensure that vehicle occupancy rates used in the Transport Assessment as a basis for analysis are achieved (a Framework CWTP is provided in Annex 23 of the TA presented within Appendix 9A ES Volume III).</p> <p>The Construction Traffic Management Plan (CTMP) will also include the following measures:</p> <ul style="list-style-type: none"> <li>• HGV routing plan communicated to all drivers during their induction;</li> <li>• Local road signage for construction traffic;</li> <li>• Limiting construction delivery hours to 07:00 – 19:00 Monday - Saturday;</li> <li>• Management of abnormal load deliveries; and</li> <li>• 24 hour contact name and number for members of the public should there be</li> </ul>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>any issues relating to construction traffic.</p> <p>The Principal Contractor will work with the relevant authorities and stakeholders to secure appropriate approvals for the transportation of abnormal loads on the strategic and local road network. Specific mitigation measures that would be investigated to deliver abnormal loads to the Site could include the temporary removal of street furniture (i.e. pedestrian islands, signage) and avoiding peak traffic periods for the delivery of abnormal loads.</p>		

**Table 3.4: Ecology**

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Potential for obtrusive glare, upward light spill and light trespass to impact on ecology.</p> <p>Potential for spillages to enter watercourses and impact ecology.</p> <p>Potential for noise and vibration disturbance of waterbirds on adjacent fields during the winter months due to drop hammer piling.</p>	<ul style="list-style-type: none"> <li>• Compliance with industry good practice and environmental protection legislation e.g. prevention of surface and ground water pollution, fugitive dust management, noise prevention or amelioration.</li> <li>• To ensure legislative compliance in relation to nesting birds, all clearance of suitable vegetation during site preparation would be undertaken outside the breeding season (typically March-August inclusive for most species), where possible. In situations where this is not possible, an ecologist would check the working area for nests before works commence. If nests were discovered, appropriate mitigation would be implemented to ensure that they are not disturbed or destroyed before any works can commence in that area. This would include imposing exclusion zones between the works and nest(s) and suspending vegetation clearance works within the area until any young had fledged.</li> <li>• To prevent trapping of wildlife in construction excavations and ensure compliance to animal welfare legislation, any excavations deeper than 1m will be covered overnight, or where not possible,</li> </ul>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>



	<p>a means of escape will be fitted (e.g. battered soil slope or scaffold plank); to allow animals (e.g. otter) to vacate excavations should they fall in.</p> <ul style="list-style-type: none"> <li>• Temporary construction lighting will be directed inwards towards the Site activity so as to minimise lights shining directly onto ecologically sensitive areas (e.g. wintering bird habitat)</li> <li>• As set out in Table 3.2 above, piling methods and/or piling working hours will be selected to prevent significant noise effects on adjacent waterbird habitat during the winter months (September to March inclusive), such as using Continuous Flight Auger piling instead of drop hammer piling and/or avoiding drop hammer piling two hours either side of high tide during the period September to March inclusive.</li> </ul>		
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**Table 3.5: Landscape and Visual Amenity**

<b>POTENTIAL IMPACT</b>	<b>MITIGATION/ENHANCEMENT MEASURES</b>	<b>MONITORING REQUIREMENTS</b>	<b>RESPONSIBILITY</b>
<p>Loss of existing landscape features and visibility of new landscape features (temporary and permanent) including:</p> <ul style="list-style-type: none"> <li>• removal of habitats (e.g. ponds and grassland etc.) to allow for construction;</li> <li>• movement of plant and heavy goods vehicles, both on Site and in the surrounding area;</li> <li>• temporary stockpiling of earth and storage of materials on Site;</li> <li>• establishment of Site compounds resulting in temporary structures to serve the workforce;</li> <li>• introduction of stationary and moving piling rigs, cranes and other high level machinery to assist high level construction works;</li> <li>• building construction including the new stacks and large scale structures; and</li> <li>• external lighting to illuminate Site operations after dark.</li> </ul>	<p>Suitable materials will be used, where possible, in the construction of structures to reduce reflection and glare and to assist with breaking up the massing of the buildings and structures.</p> <p>Lighting required during the construction and operation stages will be designed to reduce unnecessary light spill outside of the Proposed Development boundary.</p> <p>Measures will be put in place to mitigate impacts on landscape and visual receptors where required by environmental impact assessment.</p>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

**Table 3.6: Geology, Hydrogeology and Land Contamination**

<b>POTENTIAL IMPACT</b>	<b>MITIGATION/ENHANCEMENT MEASURES</b>	<b>MONITORING REQUIREMENTS</b>	<b>RESPONSIBILITY</b>
<p>Impacts from construction on the following</p> <ul style="list-style-type: none"> <li>• soil resources;</li> <li>• construction workers;</li> <li>• controlled waters (surface water and ground water);</li> <li>• off Site human receptors.</li> </ul>	<p>Minimising traffic movement over topsoil materials and soil stripping during inappropriate weather conditions, such that the soils are not wet. Once stripped, the soils shall be stored in soil bunds to an agreed height so that the weight of the material does not damage the structure of the soil. The topsoil shall be reused in areas of landscaping within the Site or off Site if it cannot be re-used on Site.</p> <p>The Principal Contractor will use Best Practical Means including:</p> <ul style="list-style-type: none"> <li>• measures to minimise dust generation;</li> <li>• provision of personal protective equipment (PPE), such as gloves, barrier cream, overalls etc. to minimise direct contact with soils;</li> <li>• provision of adequate hygiene facilities and clean welfare facilities for all construction site workers;</li> <li>• monitoring of confined spaces for potential ground gas accumulations, restricting access to confined spaces i.e. by suitably trained personnel, and use of specialist PPE, where necessary; and</li> <li>• preparation and adoption of a Site and</li> </ul>	<p>Additional ground investigation may be undertaken at the Site to include installation of monitoring wells with targeted response zones, groundwater level monitoring and chemical testing to determine the presence of any contaminants in groundwater, should this be required to meet permitting requirements.</p> <p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>task specific health and safety plan.</p> <p>Surface water run-off would be controlled using appropriate drainage measures and segregating uncontaminated surface water from any process effluent streams, as well as impermeable surfacing to minimise infiltration into the ground.</p> <p>Where dewatering of excavations is required during the construction phase, a permit from the Environment Agency, to discharge to surface water or a consent to discharge to foul sewer may be required, arrangements may be required to store any waters collected during dewatering to determine whether contamination is present before deciding on where to discharge the waters to.</p> <p>A piling risk assessment will be undertaken in accordance with Environment Agency guidance.</p> <p>Prevention of pollution of surface water and/or groundwater will comply with the requirements of the following EA Pollution Prevention Guidelines (PPG) documents:</p> <ul style="list-style-type: none"> <li>• PPG1 Basic Good Environmental Practices (2013);</li> <li>• PPG5 Works in, near or over</li> </ul>		

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>Watercourses (2014);</p> <ul style="list-style-type: none"> <li>• PPG6 Construction and Demolition Sites (2014); and</li> <li>• PPG21 Incident Response Planning (2009).</li> </ul> <p>Materials used in construction will be specified taking account of the potential for aggressive ground conditions, should they be identified through risk assessment or ground investigation. If appropriate, the assessment methodology set out in Building Research Establishment Special Digest 1 (2005) will be adopted to determine the appropriate concrete classification in relation to the protection of buried concrete against sulphate attack.</p>		

**Table 3.7: Cultural Heritage**

<b>POTENTIAL IMPACT</b>	<b>MITIGATION/ENHANCEMENT MEASURES</b>	<b>MONITORING REQUIREMENTS</b>	<b>RESPONSIBILITY</b>
<p>Impacts on the setting of cultural heritage assets (designated and non-designated heritage assets) from construction activities including:</p> <ul style="list-style-type: none"> <li>• ground breaking;</li> <li>• moving machinery;</li> <li>• noise;</li> <li>• visual intrusion created by new buildings; and</li> <li>• construction traffic.</li> </ul> <p>Potential for impact upon previously unknown buried heritage assets</p>	<p>No specific mitigation has been identified to be required as no significant effects have been identified. To be reviewed and updated throughout the construction phase and within the detailed CEMP.</p>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

**Table 3.8: Water Resources, Flood Risk and Drainage**

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p><u>Water Resources</u></p> <p>Permanent loss of both surface waterbodies within the Site during construction.</p> <p>Potential change to the surrounding ditches (culverting/extension to culverts/installation of fencing).</p> <p>Pollution of surface watercourses within or near the Site during construction due to spillages or polluted surface water runoff entering the watercourse.</p> <p><u>Flood Risk</u></p> <p>Potential temporary changes to fluvial flood water flow routing within Flood Zone 3a during construction (although this is defended).</p> <p>Change to the impermeable area within the Proposed Development Site, and associated changes to surface</p>	<p><u>Water Resources</u></p> <p>Construction works undertaken adjacent to, beneath and within watercourses would comply with relevant guidance during construction, including the Environment Agency PPGs and the requirements of NELC.</p> <p>Pollution prevention measures set out by the Environment Agency which will be complied with include:</p> <ul style="list-style-type: none"> <li>• placing arisings and temporary stockpiles away from drainage systems, and directing surface water away from stockpiles to prevent erosion;</li> <li>• implementing containment measures including drip trays, bunding or double-skinned tanks of fuels and oils, storing all chemicals in accordance with their Control of Substances Hazardous to Health (COSHH) guidelines and providing spill kits in areas of fuel/oil storage;</li> <li>• keeping plant and machinery away from surface water bodies wherever possible and installing drip trays beneath oil tanks/ engines/ gearboxes and hydraulics,</li> </ul>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>water flows during operation.</p>	<p>which are checked and emptied regularly;</p> <ul style="list-style-type: none"> <li>• locating refuelling and delivery areas away from surface water drains; and</li> <li>• protecting exposed ground and stockpiles as appropriate and practicable to prevent windblown migration of potential contaminants, and using water suppression if there is a risk of fugitive dust emissions.</li> </ul> <p><u>Flood Risk</u></p> <p>The following measures will be implemented to prevent an increase in flood risk during the construction works associated with the Proposed Development,</p> <p>Measures will be implemented to reduce flood risk in the areas within Flood Zone 3a.</p> <p>The Principal Contractor will produce a Flood Emergency Response Plan which would provide details of the response to an impending flood and include:</p> <ul style="list-style-type: none"> <li>• a 24 hour availability and ability to mobilise staff in the event of a flood warning;</li> <li>• the removal of all plant, machinery and material capable of being mobilised in a</li> </ul>		



POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>flood for the duration of any holiday close down period;</p> <ul style="list-style-type: none"> <li>• details of the evacuation and Site closedown procedures; and</li> <li>• arrangements for removing any potentially hazardous material and anything capable of becoming entrained in floodwaters, from the temporary works areas.</li> </ul> <p><u>Drainage</u></p> <p>An outline drainage strategy for construction will be incorporated into the CEMP. Discharge rates and volumes of surface water runoff from the Proposed Development will be restricted to the existing greenfield runoff rates.</p> <p>Discharge/Disposal of Site Runoff/Material and/or disposal of potentially contaminated water would be agreed in advance with the Environment Agency, Anglian Water, NELC and North East Lindsey Internal Drainage Board where appropriate (and permits obtained as required). Such plans would include the following:</p> <ul style="list-style-type: none"> <li>• all foul water from any Site compound (including temporary toilets) would be either tankered away to an appropriate disposal facility by a registered waste</li> </ul>		

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>disposal contractor or treated on Site in a septic tank;</p> <ul style="list-style-type: none"> <li>• any potentially contaminated water would be tested, and if it is not of a suitable quality, agreed disposal procedures would be followed. Construction drainage details would be developed in consultation with the Environment Agency;</li> <li>• any waters removed from excavations by dewatering would be discharged appropriately, subject to the relevant licenses being obtained where necessary;</li> <li>• foundations and services would be designed and constructed to prevent the creation of pathways for the migration of contaminants and would be constructed of materials that are suitable for the ground conditions and designed use; and</li> <li>• no discharges from any self-contained wheel wash and localised wheel wash would be permitted into any surface water system.</li> </ul> <p>Measures to be considered on the finalisation of detailed design will include implementation of temporary drainage measures, that may include:</p> <ul style="list-style-type: none"> <li>• installation of measures such as silt</li> </ul>		

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>fences and appropriately sized settlement tanks/ponds to reduce sediment load;</p> <ul style="list-style-type: none"> <li>• cut-off ditches or geotextile silt-fences, installed around excavations, exposed ground and stockpiles to prevent uncontrolled release of sediments from the Proposed Development;</li> <li>• regular cleaning of Site access points to prevent build-up of dust and mud;</li> <li>• installation of valves to isolate the settlement tank/ ponds in the event of a polluted discharge;</li> <li>• installation of oil interceptors (notably the outflow from the settlement pond/tank) to reduce the potential risk for contamination of groundwater and surface water; and</li> <li>• separate drainage for all potentially polluted waters (including washdown areas, stockpiles and other areas of risk for water pollution) which is to be tankered away from the Site.</li> </ul> <p>If monitoring demonstrates unsatisfactory levels of solids or other pollutants, additional measures would be implemented (e.g. changes to Site drainage and settlement facilities and/or use of flocculants) to control suspended solids or other polluted</p>		

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<b>POTENTIAL IMPACT</b>	<b>MITIGATION/ENHANCEMENT MEASURES</b>	<b>MONITORING REQUIREMENTS</b>	<b>RESPONSIBILITY</b>
	discharge to watercourses		

**Table 3.9: Socio-Economics**

<b>POTENTIAL IMPACT</b>	<b>MITIGATION/ENHANCEMENT MEASURES</b>	<b>MONITORING REQUIREMENTS</b>	<b>RESPONSIBILITY</b>
<p>Temporary increase in employment for construction workers</p> <p>Increase in local employment in the surrounding area arising from indirect and induced effects of construction activities</p> <p>Impacts on amenity and journey times for local residents during construction activities</p> <p>Impacts on amenity of local businesses during construction activities</p>	<p>A jobs fair and Meet the Buyer event will be held to promote opportunities for local residents and businesses.</p> <p>Construction traffic will be managed through the CWTP.</p> <p>The applicant will commit to delivering a jobs fair to give local residents opportunities to secure employment</p>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

**Table 3.10: Waste**

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately</p>	<p>Prior to and during construction, the Principal Contractor will seek to identify beneficial uses for surplus excavated material either within the Site or on other sites, reducing the amount of excavated material being disposed of at landfill.</p> <p>Contractors will be required to adopt good practice in construction waste management which will reduce the quantity of waste generated. The following approaches will be implemented, where practicable, in order to minimise the quantities of waste requiring disposal. These may include:</p> <ul style="list-style-type: none"> <li>• agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;</li> <li>• implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;</li> <li>• attention to material quantity requirements to avoid over-ordering and generation of waste materials;</li> <li>• re-use of materials wherever feasible, e.g. re-use of excavated soil for landscaping. Concrete will be either</li> </ul>	<p>To be confirmed in detailed CEMP</p>	<p>To be confirmed in detailed CEMP</p>

	<p>taken off Site for crushing and re-use, or crushed and re-used on Site;</p> <ul style="list-style-type: none"> <li>• segregation of waste at source where practical; and</li> <li>• re-use and recycling of materials off Site where re-use on Site is not practical (e.g. through use of an off Site waste segregation facility and re-sale for direct re-use or re-processing).</li> </ul> <p>Where appropriate, the following waste management measures will be implemented in order to minimise the likelihood of any localised impacts of waste on the surrounding environment:</p> <ul style="list-style-type: none"> <li>• damping down of surfaces during spells of dry weather and brushing/water spraying of heavily used hard surfaces/access points across the Site as required;</li> <li>• off Site prefabrication including the use of prefabricated structural elements, cladding units, toilets, mechanical and electrical risers and packaged plant rooms;</li> <li>• open burning of waste or unwanted materials will not be permitted on Site;</li> <li>• all hazardous materials including fuels, chemicals, cleaning agents, solvents and solvent containing products to be in sealed containers at the end of each day</li> </ul>		
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	<p>in appropriately protected and bunded storage areas;</p> <ul style="list-style-type: none"><li>• any waste effluent will be tested and where necessary, disposed of at the correctly permitted facility by a registered specialist contractor/s; and</li><li>• materials requiring removal from the Site will be transported using registered carriers and records will be kept detailing the types and quantities of waste moved, and the destinations of this waste, in accordance with the relevant regulations.</li></ul>		
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