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**THREE OAKS RENEWABLE  
ENERGY PARK  
EXTENSION**

**Environmental  
Statement Appendix 2.1: Outline  
Construction Environmental Management  
Plan**

**MAY 2026**

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## **Introduction**

- 1.1 This Outline Construction Environmental Management Plan (oCEMP) has been prepared on behalf of the Three Oaks REP Extension Ltd ('Applicant') to support an application for planning permission for the Three Oaks Renewable Energy Park Extension ('the Proposed Development'), located approximately 1.6 km to the north-east of Burton Agnes, 1.8 km south of Rudston, 1.2 km north of Thornholme and 0.9 km north-west of Haisthorpe. The Site lies within the parish of Burton Agnes, and within East Riding of Yorkshire Council ('the Council').
- 1.2 The layout and technical details of the Proposed Development are provided in the associated Environmental Statement (ES) and accompanying figures, as identified below:
- Figure 2.2 (Indicative Site Layout Plan) – Volume 3; and
  - Figures 2.4 – 2.11 (proposed infrastructure (various)) – Volume 3.

## **Aims and objectives**

- 1.3 This oCEMP is intended to demonstrate measures that could be used during the construction phase of the Proposed Development to adequately protect environmental resources. Detailed proposals for such measures will be documented in a detailed Construction Environmental Management Plan (CEMP) prior to construction and will provide the same or greater protection for the environment as those described in this oCEMP. The measures are proportionate to the risk and, where greater risk is highlighted at specific locations prior to construction, specific measures would be agreed for those locations.

## **Project Environmental Policy**

- 1.4 The Proposed Development will be delivered in accordance with good construction practice, both in its approach to the management of impacts on the environment and its support of local communities. Where relevant, Windfarm Good Construction Guidance, Scottish Renewables *et al.* (2019) will be followed.
- 1.5 In doing so, the following approach has been developed and is delivered through the implementation of the oCEMP and associated plans and reports:
- The Applicant, along with the Contractor, the Designers, Ecological Clerk of works (ECOW) and other parties to the construction process (once appointed) will act collaboratively and cooperatively to achieve the best environmental outcomes;
  - The works will progress in accordance with the requirements of the environmental reporting and methods agreed with the Council and consultees;
  - The Applicant undertakes the appointment of a contractor that is competent;
  - The Applicant undertakes the appointment of a contractor that is experienced in delivering works in environments similar to those at the Site and in implementing mitigation works of a similar nature to those defined in this oCEMP and environmental reporting within the ES;
  - The Contractor plans the work integrating from the outset environmental requirements defined in this oCEMP (modified into a CEMP before construction commences) and environmental reporting within the ES;
  - The Contractor programs the work in a manner that is safe and that the work and mitigation measures have the greatest opportunity to be effective;

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- The Contractor develops contingency plans for reasonably foreseeable events. The Applicant, Designer and other parties take reasonable steps to support the development of the Contractor's plans taking into account responsibilities;
- The Contractor shall take reasonable steps to notify local communities of operations during the Proposed Development that may impact on domestic or business activity and will use appropriate methods to manage the impact; and
- In all operations, management of the environment and control of impacts will be an integral part of the design, management and construction process.

### **oCEMP Objectives**

- 1.6 The objective of the oCEMP is to contribute to the successful delivery of the Proposed Development, achieved through a structured approach to good construction management, taking into account information and research documented in the environmental reporting, whilst incorporating flexibility to accommodate unforeseen conditions and innovation.
- 1.7 The oCEMP will be revised with the contractors inputs in order to develop a CEMP to be submitted to and approved by the Council before construction commences. A copy of the CEMP and related files and reports will be kept in the site offices of the Contractor for the duration of the site works and will be made available for review at any time by relevant parties.
- 1.8 The CEMP is a live document that would evolve during the different phases of the project. As such it would be subject to ongoing review to address:
- Any conditions required in the consent;
  - To ensure it reflects best practice at the time of construction;
  - To ensure it incorporates the findings of pre-construction site investigations;
  - Changes resulting from the construction methods used by the contractor(s); and
  - Unforeseen conditions encountered during construction.

## **Description of the Development**

### **Site Description**

- 1.9 The Site is located on a network of regular sized, mixed arable fields comprising large and medium sized fields across an undulating and sloped terrain, defined by linear hedgerows with occasional trees. Two restricted byways follow a north / south orientation through the Site, bordered by hedgerows on both sides. The area taken by the development (that is, the wind turbines, site access and maintenance tracks and crane hardstandings) would be in the order of 5.34 ha (13.19 acres), and would be 6.09 ha (15.04 acres) when including the Temporary Construction Compounds. The Application Boundary comprises an area of 23.83 ha (58.86 acres).
- 1.10 The Proposed Development is accessed off the public lane (Unique Street Reference Number (USRN) 45908633), which itself is accessed from the highway (A614). The Site would contain the wind turbines and foundations (along with crane hardstandings, met mast, site access and maintenance tracks, transformers, cabling and temporary construction compounds).
- 1.11 The wind turbines would be connected via a section of internal tracks, which would be new or upgrades of existing farm tracks.

- 1.12 The site is located partly within, and immediately west of the consented Three Oaks Renewable Energy Park (planning reference 22/02777/STPLF).

## The Proposed Development

- 1.13 The component parts of the Proposed Development (with an export capacity of 25.2 MW) are as follows and are described in detail in Chapter 2 (Project and Site Description) – Volume 2:
- Six wind turbines up to 149.9 m above ground level (AGL);
  - Wind turbine foundations typically 25m in diameter (gravity or piled);
  - Crane hardstandings (each up to 2,171 m<sup>2</sup>);
  - Met mast (at hub height of 91.4 m);
  - Site access and maintenance tracks (typically 4 m minimum width on the upgraded access north of the A614 and 5.5 m in width for new tracks directly servicing the proposed infrastructure);
  - Transformers (adjacent to each wind turbine);
  - Cabling;
  - Two temporary construction compounds;
  - Mitigation and enhancement; and
  - The substation and access tracks from the adjacent consented (yet to be built) Three Oaks Renewable Energy Park.

## Schedule of Mitigation

- 1.14 Chapter 12 (Schedule of Mitigation) – Volume 2 of the ES summarises the various mitigation measures that have been proposed to offset the potential impacts of the Proposed Development. Such mitigation measures would be required to be implemented prior to or during the construction of the proposed development.

## Compliance with the CEMP

- 1.15 Compliance with the CEMP is the key control measure required during construction to ensure mitigation is appropriately addressed. It documents the principles and processes to be followed to implement all relevant agreed environmental mitigation.
- 1.16 The Principal Contractor would be required to prepare a series of method statements in accordance with the Schedule of Mitigation. These method statements would detail how the contractor intends to implement the mitigation set out in the CEMP and would be integrated with their detailed Construction Method Statements.
- 1.17 If any significant changes are required due to changing environmental sensitivities, results of pre-construction surveys, unforeseen events or for any other reason, these would be discussed and agreed in advance of any amended works being carried out.

## General Points

## Working Hours

- 1.18 It is proposed that construction activities would be limited to between 07:00 and 19:00 Monday to Saturday, with no construction work expected on Sundays or Bank Holidays. Any works outside of these times (such as when turbine component parts are delivered to site, or conducting specialist activities such as continuous concrete pours which cannot be stopped prior to completion) would need to be approved in writing by the Council, unless in an emergency situation.
- 1.19 A stakeholder engagement process, including the commitment to liaise directly with local residents will be agreed with the Council via the detailed CEMP to be secured by planning condition.
- 1.20 It is anticipated that work will be undertaken during daylight hours, where possible, in order to prevent disturbance to nearby residents and local wildlife, such as badgers.

## Site Induction

- 1.21 The Principal Contractor will ensure that all contractors and personnel working on and accessing the works are made aware of the content of the CEMP relevant to their work via a site induction on any personnel's first visit to the site. This will include an introduction to all health and safety measures applicable on site, as well as any Stage-specific environmental considerations. As a minimum, the following information will be provided to all inductees:
- 1.22 Identification of environmental risks associated with the Works specific to the work undertaken by the inductee. For example:
- Health, Safety and Environment (HSE) Policy;
  - Significant environmental aspects and potential impacts of their work;
  - Objectives and targets;
  - Submission of environmental improvement ideas, near misses and incidents;
  - The implications of not complying with environmental consent requirements;
  - Environmental site rules and requirements;
  - Species and / or habitat protection requirements;
  - Protocol for archaeological discoveries and watching brief;
  - Pollution prevention (e.g. silt mitigation and protection of the water environment);
  - Waste management practices; and
  - Environmental Incident and Emergency Response Procedures (EIERP).
- 1.23 Stage-specific environmental constraints will be presented in the induction. This will include known sensitive areas, restricted working zones, watercourses and buffer zones, refuelling (or refuelling exclusion) areas, location of skips, etc. Where updates occur, all site personnel will be informed of the change via Toolbox Talks.

## Training and Toolbox Talks

- 1.24 During construction, in order to provide on-going reinforcement and awareness training, Toolbox Talks will be given on environmental issues. Toolbox Talks and training are arranged by the Principal Contractor and delivered by specialist personnel on site as required. The Principal Contractor submits a schedule for Toolbox Talks at least one week prior to

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commencement of construction. The proposed schedule, to be considered as a live document, is consistent with the programme; i.e. toolbox talks for specific environmental issues are scheduled in advance of when those issues are anticipated to be encountered during the construction programme, if possible.

- 1.25 Additional Toolbox Talks are added as required, based on circumstances such as unforeseen risks, repeated observation of bad practices, perceived lack of awareness, pollution events, etc. Specifically, the Principal Contractor provides, as a minimum, environmental training on the following topics:
- Training on the use of spill kits (on ground and in surface waters), provided on a regular basis (to account for staff / sub-contractor changes etc.);
  - Training on silt mitigation e.g. installation of silt fencing etc., silt mitigation measures to relevant construction / site staff;
  - Contaminated land;
  - Archaeology;
  - Buried infrastructure; and
  - Ecology.
- 1.26 A record of all training and Toolbox Talks, their content and the attendees is maintained by the Principal Contractor.

## Utilities

- 1.27 Working areas will be secured with restricted access so only suitably qualified personnel are present. Works to confirm the location of identified utilities will be undertaken before the commencement of activities in liaison with the relevant operators.
- 1.28 Good practice working measures will be put in place in accordance with the Construction (Design and Management) Regulations 2015 and other health and safety regulations, such as the preparation of Risk Assessments and specific method statements, making workers aware of the location of utilities and their easements where works are undertaken close to utilities. In addition, relevant HSE guidance will be adhered to, including avoiding danger from underground and overhead services.

## Control of Lighting

- 1.29 The majority of construction activities will be undertaken during daylight hours. If construction activities occur in winter, the short daylight hours may require some temporary lighting to be deployed during construction however, this will be avoided as far as practicable, and lights will not be used outside of core working hours.
- 1.30 All construction lighting would be deployed in accordance with the following recommendations to reduce or remove impacts on human and ecological receptors:
- The use of lighting would be minimised to that required for safe site operations;
  - Lighting would utilise directional fittings to minimise outward light spill and glare (e.g., via the use of light hoods / cowls which direct light below the horizontal plane, preferably at an angle greater than 20° from horizontal); and
  - Lighting would be directed towards the centre of the Site rather than towards the boundaries.

## Control of Noise and Vibration

- 1.31 Construction noise will be managed via a site-specific Construction Noise Management Plan (CNMP) provided to the Council via the detailed CEMP which will be secured by condition. The mitigation contained in the CNMP will include the commitment to liaise directly with local residents.
- 1.32 The Contractor will prepare the CNMP based on the final detailed construction plan. This will be submitted for approval in advance of works commencing. As the Contractor is yet to be appointed, the detailed CNMP cannot be finalised at this stage.
- 1.33 The Contractor will observe BS 5228:2009+A1:2014 (BS 5228) Code of Practice for Noise and Vibration Control on Construction and Open Sites to inform noise control measures during the construction of the Development, with an awareness of noise pollution legislation.
- 1.34 In accordance with BS 5228 best practice, the Contractor will establish a process for handling any noise-related complaints during the construction period. These will be recorded and a log will be maintained that will include details of the response and any action taken. This will be available upon request for inspection by the relevant Council. All enquires, whether a query or a complaint, will be dealt with in a timely manner. Any complaints with regards to noise will be investigated as soon as practicable, and will be logged, along with the action taken to prevent further exceedances.
- 1.35 Any complaints received are to be recorded into the register within 24 working hours. The interested party will be notified what action is being taken to address the enquiry / complaint as required.
- 1.36 The good practice measures detailed below will be implemented to manage the effects of noise and vibration during construction activities, and will be required of all contractors:
- It is proposed that construction activities would be limited to between 07:00 and 19:00 Monday to Saturday, with no construction work expected on Sundays or Bank Holidays. Any works outside of these times would need to be approved in writing by the Council, unless in an emergency situation.
  - Where practicable, night-time working will not be carried out. Local residents shall be notified in advance of any night-time construction activities likely to generate significant noise levels, e.g., abnormal load movement;
  - The site contractors shall be required to employ means of reducing noise emissions from plant, machinery, and construction activities;
  - Where practicable, the work programme will be phased, which would help to reduce the combined effects arising from several noisy operations;
  - Where necessary and practicable, noise from fixed plant and equipment will be contained within suitable acoustic enclosures or behind acoustic screens; and
  - All sub-contractors appointed by the main contractor will be formally obliged, and required through contract, to comply with all environmental noise conditions.

## Unexploded Ordnance

- 1.37 The Site is located within an area that is identified as being at low risk from UXO. Nevertheless, as part of the CEMP, the potential risks of UXO will be communicated to all

construction workers, and there will be provision of safety training by a competent UXO expert and safety monitoring.

## Pollution Incident Procedure

- 1.38 In the event of an incident resulting in pollution, e.g. spillage of fuel or other chemicals, the following additional responses will be made:
- All incidents will be immediately reported to the Site Manager and Health and Safety (H&S) Manager and logged;
  - Appropriate spill kits will be available at all times and employed during any such instances in order to try and limit and contain the affected area; and
  - Compliance with the Emergency Response Procedures.
- 1.39 Reporting of spillages will be undertaken in accordance with relevant guidance.
- 1.40 The excavation of turbine foundations, access tracks and other infrastructure has the potential to have a direct impact upon geological features and create a theoretical pathway for pollutants regarding any groundwater abstraction. A range of mitigation measures exist to reduce the impacts on underlying geology and / or abstractions. This includes measures for avoiding the likelihood of spills and leakages, such as:
- The implementation of properly designed shoring systems to avoid unstable excavations;
  - The removal of superficial deposits should be minimised wherever possible;
  - Limiting of refuelling activities to designated, impermeably surfaced areas and use drip traps where possible;
  - Checking and maintain equipment regularly to ensure that leakages do not occur;
  - Ensuring site inductions are completed for all staff including the Principal Contractor and subcontractors; include the above procedures and the locations of spill kits; and
  - Install a foundation design cognisant of the potential for pollutant pathways.

## Emergency Response Procedures

- 1.41 Emergency Response Procedures will be contained within the Construction Phase Plan (CPP) written by the Principal Contractor. This includes evacuation procedures, emergency access and egress, muster points, location of first aid facilities and a list of emergency contact telephone numbers for key personnel and emergency services. Emergency arrangements will be documented on all site notice boards, and would include details of:
- A map with route to nearest medical facilities;
  - Emergency contact number (Police, Fire and Rescue and Ambulance);
  - On-site team contacts;
  - Incident Notification;
  - First Aid Arrangements;
  - Fire Emergency Arrangements;
  - Environmental Incidents; and
  - Security Arrangements.
- 1.42 All personnel will be made aware of and required to follow Site Emergency Protocols. This will form part of their induction process.

- 1.43 Should an incident involving injury or damage to vehicles or plant take place, the Site should be left undisturbed as far as is reasonably practicable (in accordance with personal health and safety). Where it is necessary to move equipment, materials or people to prevent or reduce environmental impact, photographs will be taken, wherever reasonably practicable (in accordance with personal health and safety), to allow easy reconstruction of the incident layout for any required investigative purposes. Both the Principal Contractor and Employer will be immediately notified of any incidents and contact will be made with the relevant emergency services, if required.
- 1.44 Consultation with the relevant local fire and rescue service will be sought by the Applicant to develop an adequate emergency response in the event of a fire. The Applicant will provide the fire services with all of the necessary information and will provide updates during operation as required.

## Site Inspections

- 1.45 Environmental site inspections will be undertaken by the Contractor's Onsite Environmental and Consents Manager supported by the wider site team. In addition, throughout construction at a frequency to be agreed as appropriate to the construction activity underway at the time, inspections and audits will be carried out by the Employer's Environmental Manager. Health and Safety inspections will be undertaken by the Employer's H&S Manager.
- 1.46 The results of these inspections will be fed back to both the Principal Contractor and the Employer. Evidence of good practices are highlighted and where issues are identified, remedial actions will be put in place.

## Fire Prevention and Control

- 1.47 The office and welfare facilities associated with the Site will have in place appropriate plans and management controls to prevent fires. A response plan, in the event of a fire breaking out, will be explained to personnel during site inductions. The Plan will be prepared by the Principal Contractor and will be specific to the Works being undertaken.
- 1.48 Works during construction will be undertaken in line with relevant guidance, such as Fire Prevention on Construction Sites: Joint Code of Practice and HSE's Fire safety in construction.

## Ecological Clerk of Works (ECoW)

- 1.49 There is a requirement for an ECoW to be appointed for certain periods of times in areas of sensitivity from commencement of construction to final commissioning of the Development, or end of the construction period, whichever is the latter. The scope of the work of the ECoW shall include, but not be limited to:
- Monitoring compliance with the ecological mitigation works – including measures for the protection of species as relevant;
  - Providing advice on adequate protection of nature conservation interests on-site;
  - Providing contractor tool-box briefings about legally protected species and their habitats;
  - Ensuring any required protected species licences are in place and providing advice and monitoring compliance with the licence conditions;

- Ensuring visual checks on any nearby watercourses are carried out regularly to identify possible construction impacts; and
- To ensure sediment and chemical pollution prevention measures are employed correctly and replaced when required.

## Arboriculture

- 1.50      Appropriate protective fencing will be installed at the outset of construction in accordance with British Standard 5837 (2012) Trees in Relation to Design, Demolition and Construction to protect the hedgerows and trees from unnecessary damage during the construction phase.

## Housekeeping

- 1.51      A good housekeeping policy will be applied at all times. As far as reasonably practicable, the following principles will be applied:
- All working areas will be kept in a clean and tidy condition;
  - Construction sites and working areas will be secured to prevent unauthorised access;
  - Open fires and the burning of rubbish will be prohibited at all times;
  - All necessary measures will be taken to minimise the risk of fire and the Principal Contractor will comply with the requirements of the local fire authority;
  - Adequate welfare facilities will be provided for site and construction staff;
  - Site waste will be stored securely to prevent wind blow;
  - Rubbish will be removed at frequent intervals;
  - The local community will have access to the contact details of the Site Foreman as well as an alternative Site Contact; and
  - All reasonable steps will be taken to ensure mud, water and other loose material does not encroach onto the public highway, and if it does, steps will be taken to as soon as practicable address any issue.

## Public Liaison, General Enquiries and Complaints

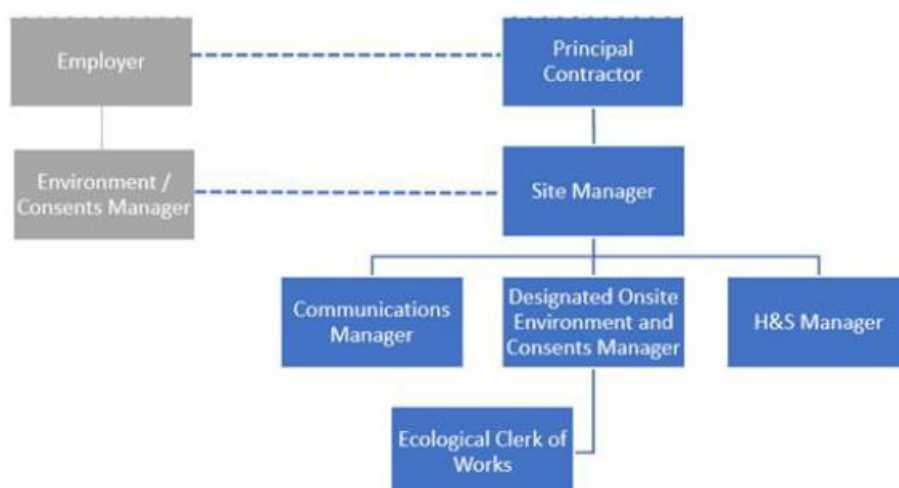
- 1.52      The Principal Contractor will have in place a plan covering community liaison, enquiries and complaints which will be contained within the CPP. Measures that will be adopted by the Principal Contractor as part of the construction of the Works include:
- The Communications Manager will establish a system for dealing with enquiries or complaints from the public, local authorities or statutory consultees;
  - Displaying an information board containing the appropriate contact names, telephone numbers and addresses for the Site contacts, as well as the helpline number at appropriate locations on the boundaries of the Site will be in place to inform the local community;
  - Prior to commencing main construction activities or work out of standard construction hours, occupiers of premises in the vicinity of the works will be notified by the Contractor of the nature of the works, any access restrictions, and provided with contact details to which any enquiries should be directed;
  - Any complaints that may arise will be logged, reported and addressed. The system will include measures to keep all relevant parties informed about the progress of complaints;
  - Complaints will be investigated and where required, mitigation implemented; and
  - A complaint close-out report will be provided, as appropriate. Discussions will be undertaken to agree a timescale for this.

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- 1.53 During construction, any external enquiries or complaints relating to an environmental and consents matter shall be reported to the Principal Contractor's Communications Manager, as well as the Environmental / Consents Manager, Ecological Clerk of Works (ECoW) and the H&S Manager.
- 1.54 The Communications Manager will then work with the on-site team to investigate, address and respond to the complaint accordingly. Environmental complaints will be recorded on the Principal Contractor's HSE system in accordance with HSE management procedures.
- 1.55 Records of complaints are regularly monitored by the Principal Contractor and Employer to check that an appropriate and timely response has been made, and to identify any emergent trends which may require further investigation.

## Environmental Roles and Responsibilities

- 1.56 Environmental roles and responsibilities vary between different stages of projects. Information regarding roles specific to the Works can be found below.



- 1.57 **Employer:** The Employer fulfils the role of the commercial client, and as such has oversight of all construction work packages. The Employer ensures that project requirements are properly implemented, controlled and effectively documented. It is the Employer's responsibility to ensure that suitable processes and resources are in place to ensure the Principal Contractor complies with the health, safety and environmental obligations.
- 1.58 **Principal Contractor:** The Principal Contractor will lead responsibility for practical construction of the Development, including the appointment of a competent Site Manager, Health and Safety (H&S) Manager, and sub-contractors, agreeing and setting construction environmental targets with the Employer, and ensuring all activities are in compliance with the requirements of documents and management plans such as a Code of Construction Practice (CoCP) and detailed Construction Environmental Management Plan and other associated reports and appendices. This contractor will be deemed to be the Principal Contractor for the purposes of the Construction (Design and Management) Regulations 2015 (CDM Regulations).

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- 1.59 Site Manager: The Site Manager will have the overall day to day responsibility for the delivery of the Works and will oversee all operational aspects of the construction programmes.
- 1.60 H&S Manager: The Health and Safety (H&S) Manager role is to oversee and enforce the implementation and adherence to all relevant health & safety provisions within the site. This role will have overall responsibility for maintaining and updating H&S provisions, and be on site to advise, guide, support and promote awareness of the onsite requirements to all personnel. The H&S role will be filled by an appropriately qualified and experienced staff member of the Principal Contractor.
- 1.61 Environment and Consents Manager: The Employer will appoint an appropriately competent person or persons (the Environment and Consents Manager) to undertake relevant environmental tasks and supervision as detailed in this document, prior to, during and upon completion of the Works. Together with the Principal Contractor and their Designated Onsite Environment and Consents Manager and the Ecological Clerk of Works (ECoW), the Environment and Consents Manager will monitor and report CoCP and oCEMP implementation through liaison with the H&S Manager, Site Manager, and other parties as appropriate.
- 1.62 Designated Onsite Environment and Consents Manager: The Principal Contractor will appoint an appropriately competent person or persons (the Designated Onsite Environment and Consents Manager) to undertake relevant environmental tasks and supervision as detailed in this document, prior to, during and upon completion of the Works. Together with the Employer's Environment and Consents Manager, the Principal Contractor and their Ecological Clerk of Works (ECoW), the Designated Onsite Environment and Consents Manager will monitor and report CoCP and oCEMP implementation through liaison with the H&S Manager, Site Manager, and other parties as appropriate.
- 1.63 Ecological Clerk of Works: A suitably qualified and experienced ECoW will be appointed and will be responsible for providing advice about ecological issues and helping to ensure that the measures specified in the CEMP and detailed Landscape and Biodiversity Mitigation and Enhancement Plan are complied with.
- 1.64 Communications Manager: A Communications Manager will be appointed and will establish a system for dealing with enquiries or complaints from the public, local authorities or statutory consultees. Any complaints that may arise will be logged, reported and addressed and complaint close-out reports will be produced and submitted.

## Traffic Management

- 1.65 A detailed Construction Traffic Management Plan (CTMP) will be secured by way of planning condition separate to this oCEMP, and will address matters such as construction vehicle delivery schedule, construction traffic routing, wheel washing, management of construction traffic crossing Westend Farm Lane, signage and relevant contact details. An outline CTMP has been included as Appendix 8.4 (oCTMP) – Volume 4 of the ES.
- 1.66 An Abnormal Load Management Plan will also be secured by way of planning condition, separate to this oCEMP.

## Management of Sediment and Surface Water

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- 1.67 Management of sediment and surface water is to be addressed in accordance with the Surface Water Drainage Strategy (SWDS), submitted alongside and to be read as accompanying this oCEMP as Appendix 8.6 to the ES (Volume 4). The SWDS is in accordance with the National Standards for Sustainable Drainage Systems (SuDS) and SuDS Combined Planning Note and Standing Advice – East Riding of Yorkshire Council (Sept 2016).
- 1.68 The SWDS includes two focus points, which are to:
- Manage surface water runoff from the proposed site infrastructure and mitigate flood risk from external sources; and
  - Mitigate the existing highway flood risk where runoff from the unmetalled road creates ponding at the junction with A614.
- 1.69 The SWDS responds to specific requirements made by East Riding of Yorkshire Highways and the Lead Local Flood Authority and addresses:
- Infiltration & infiltration basins;
  - Land drainage;
  - Culverts;
  - Public highway, access tracks and hardstanding areas;
  - Filter strips;
  - Swales;
  - Water quality;
  - Biodiversity; and
  - Operation and Maintenance.
- 1.70 The Applicant commits to a rolling implementation of the SWDS as installation of infrastructure progresses during the construction phase to manage any construction water runoff, with construction surface water being managed in accordance with CIRIA guidance:
- Control of water pollution from linear construction projects. Technical guidance (C648).

## Water Quality Monitoring

- 1.71 A surface water monitoring programme will be established prior to the construction phase of the Development. An indicative monitoring programme is set out below.
- 1.72 Visual inspections of any drainage or nearby surface watercourses will be regularly carried out especially during major excavation works. This will allow rapid identification of changes to water quantity or water quality that could indicate construction related impacts are occurring. Potential impacts will then be investigated and remedial action taken to prevent further impacts, if necessary.
- 1.73 Establishing baseline conditions for surface waters will be undertaken to enable any trends in levels of critical parameters to be assessed and deviations from the norm identified and rectified through water management measures.
- Control of water pollution from linear construction projects. Site guide (C649).

## **Pollution Prevention**

- 1.74 Produced historically by the Environment Agency (EA), archived Pollution Prevention Guidelines (PPGs) have now been replaced by PPG guidance which is recognised as good practice in England. The full series of guidance to be drawn from is available here: <https://www.netregs.org.uk/tools/guidance-for-pollution-prevention-gpp-documents/>.
- 1.75 The following other principles will be applied:
- All works will comply with Control of Water Pollution from Construction Sites – A Guide to Good Practice, CIRIA (Construction Industry Research and Information Associate) (SP156 – 2002);
  - Appropriate spill and leak containment systems will be incorporated into the construction procedures to ensure no uncontrolled releases of contaminants occur;
  - Storage of fuels, oils and chemicals will be in appropriately bunded static tanks within the site of the relative works. This storage will be in compliance with the respective Control of
  - Substances Hazardous to Health (COSHH) assessments; and
  - Refuelling will take place within dedicated refuelling areas within the site. Where applicable, fuel systems will have automatic shut-off pistol grip nozzles.

### **Storage of Chemicals and Oil**

- 1.76 Potentially contaminating chemicals stored on site will be kept within a secure bunded area to prevent any accidental spills from affecting hydrological resources. The bunded area will be within the construction compound and will be underlain by an impermeable ground membrane layer to reduce the potential pathways for contaminants to enter watercourses and groundwater.
- 1.77 Oil and fuel storage containers will meet the following requirements:
- Bunded to at least 110% of the volume stored;
  - Associated pipework to be stored within the bund;
  - Located at least 10 m from any existing surface water drainage systems;
  - Mobile bowers will be locked when not in use;
  - Mobile bowers will be double-bunded;
  - Using appropriate measures e.g., drip trays when refuelling at all locations and providing spill kits with these at all working areas; and
  - If required, construction plant will only be washed in designated areas.
- 1.78 Once construction has been completed chemical storage areas are to be removed from Site as part of site demobilisation.
- 1.79 Any remaining in-situ storage facilities required for the operational phase shall be appropriately maintained and monitored for degradation and release of oils or chemicals.

### **Spillage of Chemicals and Oil**

- 1.80 The temporary construction compounds will have a bunded area and this area will be underlain by an impermeable ground membrane layer. The bund will have a capacity of 110% of the

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stored liquid containers (including fresh concrete). This will reduce the potential for accidental spillages to contaminate surface water or groundwater.

- 1.81 Best practice guidance on the prevention of spillages of chemicals outlines the following measures:
- Areas where transfer and handling of chemicals is to occur should have an impermeable surface;
  - Drainage systems onsite should be designed to enable the containment of spillages and appropriate disposal and treatment;
  - Emergency procedures are implemented for a spillage incident and leak detection measures (if appropriate);
  - Regular maintenance and inspection of chemical storage facilities to be conducted (may be carried out by onsite ECoW); and
  - Provision and training in the use of spill kits, as outlined below.
- 1.82 Appropriately sized spill kit(s) will be provided, maintained and located at strategic points across the Site. It is also recommended that all vehicles on-site have spill kits in the event of a spillage from a vehicle. This will contain materials, such as absorbent granules and pads, absorbent booms and collection bags. These are designed to halt the spread of spillages and will be deployed, as necessary, should a spillage occur elsewhere within or beyond the construction compound.

### Concrete, Cement and Grout

- 1.83 To comply with best practice, concrete, cement and grout mixing and washing areas should:
- Be sited in an impermeable hardstanding or geotextile within a designated area;
  - Be sited at least 10 m from any watercourse or surface water drain, rock outcrop or sinkhole;
  - Install settlement and re-circulation systems for water re-use in any batching process to minimise water use, treatment requirements and risk of pollution;
  - Designated and contained washing areas for batching plant and vehicles; and
  - Collect contaminated wash waters which cannot be reused and discharge to foul sewer or tanker off-site. Contaminated water should never be released to the water environment.
- 1.84 To prevent pollution, it is important that all concrete pours are planned and that specific procedures are adopted where there may be a risk of surface water or groundwater contamination, in accordance with CIRIA C532. These procedures will include:
- Ensuring that all excavations are sufficiently dewatered before concrete pours begin and that dewatering continues while the concrete cures. However, construction good practice will be followed to ensure that fresh concrete is isolated from the dewatering system; and
  - Ensuring that covers are available for freshly placed concrete to avoid the surface of the concrete washing away during heavy precipitation.

## **Management of Soil and Land**

## Degradation of Soils

- 1.85 There is the potential for soils to be compacted and soil structure to deteriorate especially in areas where heavy materials or equipment is stored.
- 1.86 To minimise the risk of damage to soil structure, the following rules must be observed during all soil handling tasks:
- No trafficking of vehicles / plant or materials storage to occur outside demarcated working areas;
  - No trafficking of vehicles / plant on reinstated soil (topsoil or subsoil);
  - Only direct movement of soil from donor to receptor areas (no triple handling and / or ad hoc storage);
  - Soil handling is to be determined based upon soil moisture content. Where practicable soil handling when soil moisture content is above the lower plastic limit (the moisture content at which soil begins to behave as a plastic material and the soil is deemed too wet to handle without causing damage to the soil structure), should be avoided;
  - Where soils are wet or damp, to minimise compaction, soils should be handled using excavators rather than dozers;
  - No mixing of topsoil with subsoil, or of soil with other materials;
  - Soil is only to be stored in designated soil storage areas;
  - All soil storage areas (stockpiles) must be planned appropriately and must have clear signage accordingly by the appropriate contractors to ensure no cross contamination occurs and ease of identification for reinstatement;
  - Topsoil stockpiles should not exceed 4 m in height and subsoil stockpiles should not exceed 5 m in height. However, if the soil to be stockpiled is dry, formation of higher stockpiles may be permissible, if required, as the soil is likely to remain dry in the core of the stockpile for the entire storage period. However, the appropriateness of higher stockpiles will need to be established on a location by location basis;
  - Once the placement of soils into stockpiles has been completed, rainfall and soil moisture conditions are of lesser importance, providing they do not lead to erosion resulting in a loss of the soil resource and potentially a change in soil composition if fine material is lost leaving a greater proportion of stones. Stockpile erosion can also result in significant environmental impacts, such as discharges of sediment laden for pathways that could be susceptible to local receptors (roads, drainage systems and surrounding land);
  - Locations and footprints of each stockpile will be accurately recorded on a plan of appropriate scale by the Contractor(s). Marker posts will need to be provided in locations which have been surveyed and recorded (this should also occur if further soil surveys are required);
  - Plant and machinery only work when ground or soil surface conditions enable their maximum operating efficiency (i.e. when machinery is not at risk of being bogged down or skidding causing compaction or smearing);
  - All plant and machinery must always be maintained in good working condition to ensure that the soil is stripped correctly, for example to ensure that the depth of the strip can be accurately controlled, and to minimise the risk of contamination through spillages;
  - The size of the earthmoving plant to be used should be tailored to the size of the area to be stripped and the space available within the working area. The use of a long reach excavator, which will minimise the need for movement across the soil surface and the use of tracked vehicles, will further reduce soil compaction;
  - Given the wide spacing of exploratory locations in some area, if any critical buried concrete infrastructure is planned to be constructed as part of the project, it would be prudent to undertake targeted sampling and analysis of soil and groundwater in the location of critical infrastructure to confirm the risk associated to buried concrete leachate.
  - The process should be documented; and
  - If any soil or aggregate materials are imported as part of the construction, the materials should be subject to sampling and analysis to ensure it is suitable for its intended use from an

environmental risk and waste management perspective. This process should be fully documented.

## Unexpected Contamination

- 1.87 In the event that previously unidentified contamination is found at any time during the Works, the Principal Contractor will report it in writing immediately to the Council. An investigation and risk assessment must be undertaken, and where remediation is necessary a remediation scheme must be prepared which is subject to the approval in writing of the Local Planning Authority.
- 1.88 Following completion of measures identified in the approved remediation scheme a verification report must be prepared, which will be subject to the approval in writing of the Local Planning Authority. Following completion of the enabling works, a report must be submitted confirming that unexpected contamination was not encountered during the development.

## **Other Pollution Prevention Measures**

### Vehicle Maintenance

#### Potential Hydrocarbon Contamination

- 1.89 During construction, machinery will be regularly maintained to reduce the likelihood of fuel or oil leaks / spillages to occur. All maintenance will be conducted on suitable absorbent spill pads to minimise the potential for groundwater and surface water pollution. All machinery will be bunded and equipped with drip pans to contain fuel spillage or equipment leakages.
- 1.90 Appointed refuelling personnel will be trained in the correct methods of refuelling on-site to ensure that pollution incidents are prevented. Should a spill occur, a quick response plan will be implemented to minimise the impact of spills. Fuel delivery vehicles servicing the Site will only be allowed as far as the construction compounds.
- 1.91 Equipment within the construction compound will be bunded to mitigate any spillage during refuelling and operations will only be permitted where they comply with the Contractor's method statement / requirements.
- 1.92 Fuel pipes on plant, outlets at fuel tanks, etc., will be regularly checked and maintained to ensure that no drips or leaks to ground occur. The following precautions will also be installed on fuel delivery pipes:
- Any flexible pipe, tap or valve must be fitted with a lock where it leaves the container and be locked when not in use;
  - Flexible delivery pipes must be fitted with manually operated pumps or a valve at the delivery end that closes automatically when not in use;
  - The pump or valve must have a lock and be locked when not in use;
  - Warning notices including "No smoking" and "Close valves when not in use" shall also be displayed; and
  - Spill kits will be available within each plant / vehicle on site and also located close to identified pollution sources or sensitive receptors (fuel storage areas etc.).

- 1.93 Irrespective of the buffer distances to watercourses and location of refuelling points, interceptor drip trays or similar (open metal drip trays are not acceptable) will be available in accordance with standard good practice across the construction industry. Interceptor drip trays will be positioned under any stationary mobile plant to prevent oil contamination of the ground surface or water. Plant and site vehicles are to be well maintained and any vehicles leaking fluids must be repaired or removed from the Site immediately. Any servicing operations shall take place over drip trays.

### Non-Road Mobile Machinery

- 1.94 Recommended mitigation measures in relation to Non-Road Mobile Machinery (NRMM) are detailed below:
- All NRMM should use fuel equivalent to ultra-low sulphur diesel (fuel meeting the specification within EN590:201365);
  - All NRMM should comply with the previous EU Directive Staged Emission Standards (97/68/EC, 2002/88/EC, 2004/26/EC) or new emission standards as they are introduced in the UK.
  - Acceptable standards will be updated to the most current standard as appropriate;
  - All NRMM should be fitted with Diesel Particulate Filters conforming to defined and demonstrated filtration efficiency (load / duty cycle permitting);
  - Implementation of energy conservation measures including instructions to throttle down or switch off idle construction equipment; switch off the engines of trucks while they are waiting to access the site and while they are being loaded or unloaded;
  - The on-going conformity of plant retrofitted with Diesel Particulate Filters, to a defined performance standard, should be ensured through a programme of on-site checks;
  - Ensure equipment is properly maintained to ensure efficient energy consumption; and
  - NRMM and plant should be well maintained. If any emissions of dark smoke occur, then the relevant machinery will stop immediately and any problem will be rectified.

### Management of Drainage from Surplus Materials

- 1.95 Careful consideration will be given to the location of topsoil and subsoil storage areas for all areas of the Site during construction. Storage areas will be either in a flat dry area away from existing land drains, or be protected by the addition of cut off drains above the storage areas to minimise the ingress of water.
- 1.96 All stockpiled material will be stored at least 50 m from drainage ditches in order to reduce the potential for sediment to be transferred into the wider surface water system and will be regularly inspected to ensure that erosion of the material is not taking place.

### Dust Suppression and Control

- 1.97 Water will be needed for dust suppression on the haul roads during periods of dry weather and the compound vehicle wash will be clean water. Clean water may be obtained from re-circulated clean or treated drainage waters.
- 1.98 Good practice measures will be adopted during construction to control the generation and dispersion of dust such that significant impacts on neighbouring habitats will not occur. The hierarchy for mitigation will be prevention, suppression then containment.

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- 1.99 The following mitigation measures will be implemented to control the movement of dust within the Site:
- Excavation and earthworks areas will be stripped only as required to maintain continuity of construction in order to minimise exposed areas;
  - During excavation works, drop heights from buckets will be minimised to control the fall of materials reducing dust escape;
  - Completed earthworks and other exposed areas will be covered with topsoil and re-vegetated as soon as it is practical in order to stabilise surfaces;
  - During stockpiling of loose materials, stockpiles shall exist for the shortest possible time;
  - Material stockpiles will be low mounds without steep sides or sharp changes in shape and surfaces sealed;
  - Material stockpiles will be located away from the site boundary, sensitive receptors, watercourses and surface drains;
  - Water bowsters will be available on site and utilised for dust suppression during roadworks / vehicle movements when and where required;
  - Daily visual inspections will be undertaken to assess need for use of water bowsters, with increased frequency when activities with high potential to generate dust are carried out during prolonged dry or windy conditions;
  - Shielding of dust-generating activities;
  - Use of enclosed chutes, conveyors and covered skips;
  - Covering vehicles carrying dry spoil and other wastes to prevent escape of materials; and
  - Cutting, grinding and sawing equipment will only be used in conjunction with suitable dust suppression techniques.

## Installation of Underground Cabling

- 1.100 Underground electrical cabling will be required to export electricity off-site.
- 1.101 The installation of underground cabling could lead to sedimentation of near-surface water should the cabling be buried in trenches. Chemical pollutants and sedimentation could, therefore, have the potential to adversely affect subsurface water quality, surface water quality, and groundwater.
- 1.102 The position of the cable route will be marked out and the line stripped of turfs and soils and set aside for reinstatement. Ecologically sensitive areas will be avoided by construction plant and vehicles. Where practical, the cable run installation will be undertaken adjacent to and within the access track, to minimise intrusion into the surrounding areas, although it may be required to divert to the shortest possible routes locally. The siting and laying of the cables will be supervised by the ECoW(s) where possible and clay bunds will be installed at appropriate intervals especially on steep ground preventing the flow of surface water down the trench excavation.
- 1.103 Sand will be imported to the Site and will be placed around the cables as protection. Suitable duct marker tape shall be installed in the trench prior to backfilling.
- 1.104 The following mitigation measures will aim to minimise soil compaction:
- The position of trenches will be marked out and the line stripped of turfs and soils and set aside for reinstatement; and
  - Vehicles using the track / undertaking the cable laying must be the lightest vehicle required for that job and must use either wider tires, dual tires, or tracks.

## **Materials Management**

### **General Good Practice Measures**

- 1.105 Import, export (not anticipated) and reuse of material generated on-site will be undertaken in line with the requirements of the CL:AIRE Definition of Waste: Development Industry Code of Practice (version 2).
- 1.106 No soils are expected to be generated that cannot be re-used on the site. Any soils that cannot be re-used will be taken off site and disposed of in line with current waste disposal guidance. Further details will be included in the detailed CEMP produced by the appointed contractor.

### **Other Waste Materials**

- 1.107 Waste such as timber, metal, general waste, etc., will be segregated on-site, and disposed of offsite.
- 1.108 A Waste Management Plan will be prepared which follows the waste hierarchy, as outlined within article 4 of the Waste Framework Directive 2008/98/ES. The waste hierarchy, as defined within legislation, is as follows:
- Prevention;
  - Re-use;
  - Recycling;
  - Other recovery; and
  - Disposal.

## **Pre-Construction Surveys, Protected Species and Monitoring**

- 1.109 Prior to the commencement of the construction of the proposed development, detailed site investigations would be undertaken to inform the designers / engineers of the development components. Preconstruction habitat and protected / notable mammal surveys would be required to inform appropriate management and protection plans. Additional survey for protected species will be undertaken. Survey outcomes will inform the designers / engineers in selecting appropriate working methods.

### **Geotechnical investigations**

- 1.110 Geotechnical investigations shall be undertaken at the detailed design stage to ensure ground conditions are suitable for infiltrating surface water in accordance with industry recognised guidance and infiltration testing methods, and to determine final infiltration rates.

### **Biodiversity**

- 1.111 Chapter 7 (Biodiversity) – Volume 2 of the ES provides details of protected species surveys undertaken to date.

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- 1.112 A Species Protection Plan (SPP) will be implemented to ensure compliance with the Wildlife and Countryside Act and Badgers Act (a) to avoid any impacts to species specially protected under Schedule 5 of that Act and the Badgers Act, and (b) to avoid any damage to active setts / holts / hibernacula.
- 1.113 A Breeding Bird Protection Plan (BBPP) will be implemented to ensure compliance with the Wildlife and Countryside Act 1981 to (a) avoid any disturbance to species specially protected under Schedule 1 of that Act and (b) avoid any damage to active nests.
- 1.114 Pre-construction surveys will be undertaken by the ECoW immediately prior to and during any construction works to ensure compliance with the nature conservation legislation. It would include specific badger surveys within areas likely to be directly affected by construction works (ground works and vegetation clearance). A Draft BBPP and SPP are included within Appendix 7.9 and 7.10 – Volume 4 of the ES, detailed versions of which will be secured by way of planning condition.
- 1.115 The ECoW will additionally make checks for any other protected species that could be affected immediately ahead of construction of all areas of ground works, to ensure that no such species are killed or injured during construction and that no breaches of the Wildlife and Countryside Act 1981 (as amended) occur.
- 1.116 Ongoing surveys throughout the construction phase will be informed by results of the pre-construction surveys detailed above. These would focus on the key species that could potentially be affected during construction, badger. Surveys would take the form of specific checks for these species (using the same survey methods as described above) in areas that would be directly affected by the construction works, ahead of those works commencing.
- 1.117 All site personnel shall be briefed upon the presence of sensitive habitats and potential / confirmed presence of protected species as well as agreed appropriate working methods. An emergency response procedure will be communicated in the event of site personnel suspecting or detecting the presence of a protected species during works. In the event that a protected species is encountered within or near the working area, works will cease and the ecological clerk of works will be contacted immediately for advice on appropriate working methods and when works can safely proceed.

## **Conclusions and recommendations**

- 1.118 The purpose of this oCEMP is to outline how the Development will avoid, minimise and / or mitigate any impacts on the environment and surrounding area.
- 1.119 The measures proposed in this oCEMP will ensure that any impacts on the surface and groundwater environment are minimised.
- 1.120 If required, this oCEMP will be adapted to meet the additional requirements of the Contractor and ECoW, to ensure that all measures implemented are effective and site-specific.
- 1.121 The oCEMP is considered to be a 'live' document, such that modifications can be made following additional information and advice from consultees.