East Pye Solar

Outline Construction Environmental Management Plan

Revision 3 (Clean)

October 2026

Planning Inspectorate Reference: EN0110014

Document Reference: APP/7.1

APFP Regulation 5(2)(q)

Schedule of Changes

Reference	Page	Description of Changes	Reason for Revision
Outline Construction Environmental Management Plan **Revision 2**	23, 57	Additional detail provided regarding wheel cleaning facilities.	In response to Relevant Representation EA-017
	22, 56	Clarification that the minimum buffer is 10m from the top of bank.	In response to Relevant Representation EA-012
	22, 56	Included reference to areas of higher surface water flood risk / major surface water flow routes.	In response to Relevant Representation NCC-122
	24	Additional detailed provided on the breakout contingency procedure.	In response to Relevant Representation EA-018
	25, 38, 39, 58, 72, 73	Addition of BESS and National Grid Substation.	In response to Relevant Representation EA-035, EA-036, EA-038
	38, 72	Additional detail provided on ground investigations.	In response to Relevant Representation EA-014
	81	Amended reference to decommissioning	In response to Relevant Representation EA-049
	8	Clarification on Laydown Areas / Construction Compounds	In response to the Examining Authority's written question Q1.2.8
Outline Construction Environmental Management Plan **Revision 3**	23, 57	Additional guidance referenced	In response to WR-EA-010
	38, 73	Addition of text to Tables 3.12 and 4.12 within the "*Drilling fluid seepage to surrounding environment*" row.	In response to Relevant Representation EA-018

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1. Introduction

1.1 Background

1.1.1. This document provides the outline for the Construction Environmental Management Plan (CEMP) for East Pye Solar (hereafter referred to as 'the Scheme').

1.1.2. A Development Consent Order (DCO) would provide the necessary authorisations and consents for the Scheme. The Scheme comprises the construction, operation and maintenance, and decommissioning of a Solar photovoltaic (PV) electricity generating station with a total capacity exceeding 100 megawatts (MW), and associated development including a Battery Energy Storage System (BESS), up to three 132kV Project Substations and up to three 400kV Project Substations, Grid Connection Infrastructure and a new National Grid Substation. A description of the Scheme can be found in **Environmental Statement (ES) Volume 1, Chapter 4 – The Scheme [EN0110014/APP/6.1.4]**.

1.1.3. The Order Limits contain all elements of the Scheme comprising the Solar PV Arrays, 132kV and 400kV Project Substations, the National Grid Substation, the BESS, Grid Connection Infrastructure, interconnecting cables within the Cable Route Corridor (CRC), Mitigation and Enhancement Areas and Highway Works. A description of the Order Limits is provided in the **ES Volume 1, Chapter 3 – The Order Limits [EN0110014/APP/6.1.3]**.

1.1.4. Due to its total capacity exceeding 100MW, the Scheme is classified as a Nationally Significant Infrastructure Project (NSIP) under Sections 14(1)(a) and 15(2) of the Planning Act 2008 (Ref - 1) and therefore requires consent via a DCO. The decision whether to grant a DCO will be made by the Secretary of State for Energy Security and Net Zero (hereafter referred to as 'the Secretary of State' (SoS)) following the Examination and Recommendation by the Planning Inspectorate.

1.1.5. An Environmental Impact Assessment (EIA) has been undertaken for the Scheme and an **ES [EN0110014/APP/6.1** to **6.4]** has been prepared in accordance with the Infrastructure Planning (EIA) Regulations 2017 (EIA Regulations) (Ref - 2). In accordance with the requirements of the EIA Regulations, the ES contains the assessment of the likely significant effects on the environment that may be caused during the construction of the Scheme and describes proposed mitigation measures.

1.1.6. The aim of this Outline CEMP is to demonstrate how the mitigation measures relevant to construction activities included in the ES will be implemented. It also sets out the monitoring and auditing activities designed to ensure that such mitigation measures are carried out and effective. This Outline CEMP does not address operational or decommissioning activities, which are subject to separate environmental management plans and procedures, as set out in the **Outline Operational Environmental Management Plan (Outline OEMP) [EN0110014/APP/7.2]** and **Outline Decommissioning Environmental Management Plan (Outline DEMP) [EN0110014/APP/7.3]**).

1.1.7. This Outline CEMP is designed with the objective of securing the relevant environmental mitigation measures set out within the ES. This document provides the likely structure of, and some outline information relevant to, the detailed CEMP. The detailed CEMP will be produced substantially in accordance with this Outline CEMP following the grant of the DCO and before construction commences. It will be submitted to and approved by the relevant planning authority in accordance with the Requirement of the **draft DCO [EN0110014/APP/3.1]**.

1.1.8. Compliance with the contents of the detailed CEMP is intended to provide a systematic approach to environmental management so that environmental risks are identified, incorporated in all decision-making and managed appropriately. Detailed construction techniques and supporting Risk Assessment Method Statements (RAMS), which would outline further mitigation requirements based on the measures discussed in the detailed CEMP and any supporting appendices, will be produced by the appointed Contractor responsible for the construction of the Scheme.

1.1.9. The key elements of this Outline CEMP are:

- An overview of the Scheme, construction activities and programme;
- Prior assessment of environmental impacts (through the EIA process);
- Proposed design and other mitigation measures to prevent or reduce potential adverse environmental effects;
- Monitoring and reporting of effectiveness of mitigation measures;
- Corrective action procedure; and
- Links to other complementary plans and procedures.

1.1.10. In summary, this Outline CEMP identifies how commitments made in the **ES [EN0110014/APP/6.1** to **6.4]** will be translated into actions during construction and includes a process for implementing the actions through allocation of key roles and responsibilities. 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. The detailed CEMP will be a 'live' document updated throughout the construction phase as required, for example to reflect changes in legislation or contact details. This Outline CEMP has been designed with the objective of compliance with the relevant environmental legislation and mitigation measures set out within the ES.

1.1.11. Multiple detailed CEMPs may be prepared, approved, and implemented for specific works, for example separate detailed CEMP may be prepared for the Site and the CRC. Within this document 'detailed CEMP(s)' is defined to collectively refer to all detailed CEMP which may be prepared.

1.1.12. The appointed Contractor(s) will be responsible for working in accordance with the environmental controls documented in the Outline CEMP, pursuant to the DCO. The overall responsibility for implementation of the detailed CEMP will be with the appointed Contractor as a contractual responsibility to the Applicant, as the Applicant is ultimately responsible for compliance in accordance with the Requirement of the **draft DCO**. **[EN0110014/APP/3.1].**

1.2 The Applicant

1.2.1 The Scheme is being developed by East Pye Solar Limited ('the Applicant'). The Applicant is part of Island Green Power (IGP). IGP, who are a leading international developer of renewable energy projects, was established in 2013.

1.2.2 IGP has successfully delivered nearly 40 solar projects worldwide that have generated more than 3GW of energy capacity. This includes 21 solar projects in the UK. These range in size from below 5MW to NSIP such as Cottam; currently the UK's largest consented solar project. Cottam will generate 600MW of clean, renewable and secure electricity and includes 600MW of battery storage that will store then release energy as needed.

1.2.3 IGP's mission is to deliver renewable energy solutions that create lasting value for the communities they serve, protecting the environment while fostering economic growth and energy independence.

1.3 The Scheme

1.3.1 The Scheme comprises the construction, operation and maintenance, and decommissioning of a Solar PV electricity generating station with a total capacity exceeding 100MW and associated development including a BESS, up to three 132kV Project Substations and up to three 400kV Project Substations, Grid Connection Infrastructure and a new National Grid Substation. A description of the Scheme can be found in **Environmental Statement (ES) Volume 1, Chapter 4 – The Scheme [EN0110014/APP/6.1.4]**. Further details of the Scheme are presented in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**.

1.3.2 The Order Limits contain all elements of the Scheme comprising the Solar PV Arrays, 132kV and 400kV Project Substations, the National Grid Substation, the BESS, Grid Connection Infrastructure, interconnecting cables within the CRC, Mitigation and Enhancement Areas and Highway Works. A description of the Order Limits is provided in the **ES Volume 1, Chapter 3 – The Order Limits [EN0110014/APP/6.1.3].**

1.3.3 Highway Works (refer to the **Works Plan [EN0110014/APP/2.3]**) are sections of the highway network that will contain localised improvements, such as improvements to deteriorated road edges or temporary highway and traffic works required to safely accommodate the Abnormal Indivisible Load (AIL) deliveries to the Scheme. Highway Works will support the movement of construction vehicles on narrower sections of the local road network (LRN) within parts of the routes to and within the Order Limits (refer to **ES Volume 1, Chapter 11 - Transport and Access [EN0110014/APP/6.1.11]**).

2. Construction Environmental Management

2.1 Roles and Responsibilities

2.1.1 Key roles and responsibilities during the construction phase in managing environmental impacts will likely include but are not limited to:

- **Site Manager** – Overall responsibility for construction activity and will be based on site full time;
- **Construction Project Manager** – Overall responsibility for ensuring all elements in the DCO, detailed CEMP(s) and all environmental, legal and other requirements are implemented, and appropriately resourced, managed, reviewed and reported;
- **Environmental Manager** – Responsible for the overall management of environmental aspects, ensuring environmental legislation and best practices are complied with, and environmental mitigation and monitoring measures identified are implemented. The Environmental Manager will oversee environmental monitoring, carry out regular environmental inspections and will liaise with relevant environmental bodies and other third parties as appropriate;
- **Archaeological Project Manager** – Responsible for monitoring the completion of archaeological works in accordance with the programme reporting and responding to any incidents or non-compliance;
- **Environmental Clerk of Works** – Oversee the management of, and provide advice about, environmental risks during construction including for example, surface water management, pollution, air quality and noise;
- **Ecological Clerk of Works (ECoW)–** Oversee certain construction activities which have the potential to impact on protected species. The ECoW will be responsible for undertaking and/or co-ordinating checks for protected species, providing watching briefs and providing confirmation that activities can commence in adherence with relevant legislation at that time. The ECoW will assist and advise the Site Manager(s) in their adherence to the requirements of the detailed Protected Species Management Strategy;
- **Flood Warden** – There will be a dedicated responsibility to be prepared for, and manage, the response to flood incidents;
- **Health and Safety Manager –** Responsible for the monitoring and controlling of health and safety compliance; and

- **Community Liaison Manager/Public Liaison Officer –** A Community Liaison Group (CLG) will be set up in accordance with the relevant DCO Requirement for the construction phase. A Community Liaison Manager will be appointed to lead discussions with local communities and also act as the primary point of contact should there be any queries or complaints.

2.1.2 These roles and responsibilities are indicative and will be confirmed in the detailed CEMP(s).

2.2 Construction Programme

2.2.1 The construction of the Scheme is anticipated to commence in 2028 for a period of approximately 24 months. On this basis, it is expected that the Scheme could be completed by 2030 and energised in 2031. However, the construction period will vary depending on detailed layout design and potential environmental constraints on the timing of construction activities. Additionally, the construction activities may vary across the Order Limits as larger Sites and Sub-Sites will have multiple construction activities overlapping at the same time.

2.3 Working Hours

2.3.1 The core construction working hours (excluding start-up and shut down works) are defined as:

- Monday to Friday from 07:00 to 18:00 (daylight hours permitting);
- Saturday from 08:00 to 13:30 (daylight hours permitting); and
- No Sunday or Bank Holiday working unless crucial to construction (for example, for trenchless crossings which must be continuous activity and the arrival and departures of workers and the delivery of AIL) or in an emergency.

2.3.2 Where practicable, construction deliveries will be co-ordinated to avoid Heavy Good Vehicle (HGV) movements during the traditional network peak morning (08:00 to 09:00) and peak afternoon (17:00 to 18:00) hours. Some activities may be required outside of these times such as the delivery of AIL, concrete pours for foundations, night working for cable construction works in public highways and/or trenchless crossing activities.

2.4 Landscape and Ecology

2.4.1 The **Outline Landscape and Ecology Management Plan (Outline LEMP) [EN0110014/APP/7.4]** sets out prescriptions and the management for the proposed landscape and ecological measures and areas of habitat creation. This is to support its establishment, and the overall aim to provide ecological enhancement, strengthen the green infrastructure within the local area and support landscape and visual mitigation requirements. The **Outline LEMP [EN0110014/APP/7.4]** also sets out roles and responsibilities for the planting, management and monitoring prescriptions. Whilst there will inherently be crossover with the **Outline LEMP [EN0110014/APP/7.4]**, this Outline CEMP aims at capturing all construction related mitigation.

2.4.2 Mitigation by design is secured in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**.

2.5 Control of Noise

2.5.1 Construction works will be undertaken in accordance with the best practicable means (BPM) as defined in Section 72 of the Control of Pollution Act 1974 (Ref - 3) to minimise noise and vibration effects. Noise control measures will be consistent with the recommendations of the current version of BS 5228 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' – 'Part 1: Noise' and 'Part 2: Vibration' (BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014) (Ref - 4).

2.5.2 Where works are to be conducted outside the core working hours, the Applicant or their appointed Contractor will voluntarily apply for Section 61 consent under the Control of Pollution Act 1974 (Ref - 3) and the Contractor will comply with any restrictions agreed with the relevant planning authority through that process, in particular regarding the control of noise and traffic. Compliance with these noise limits will ensure adverse effects are unlikely. AIL 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.

2.5.3 BPM will be considered for Horizontal Directional Drilling (HDD) as out in **Table 3.8** which will ensure associated noise effects will be reduced as far as reasonably practicable. Depending on the location, plant and timing of works, temporary acoustic fencing will be installed around the drilling pits.

2.6 Control of Light

2.6.1 Lighting will be required during construction for safety reasons but will be temporary in nature and predominantly limited to the core working hours. Any requirement for lighting outside standard working hours will be set out within the detailed CEMP and implemented in accordance with the Requirement of the **draft DCO [EN0110014/APP/3.1]**. The principles for lighting relating to construction activities, as set out in **ES Volume 3, Appendix 7.11 – Lighting Strategy [EN0110014/APP/6.3.7.11]**, will be adhered to.

2.7 Traffic Management

2.7.1 During construction, the appointed Contractor(s) will ensure that the impacts from construction traffic are minimised on the Local Road Network, where reasonably practicable, by implementing the traffic management measures set out in the **Outline Construction Traffic Management Plan [EN0110014/APP/7.6]** (Outline CTMP).

2.7.2 The **Outline CTMP [EN0110014/APP/7.6]** also provides construction access arrangements, internal haul routes and construction vehicle routing. It also provides a Framework Construction Worker Travel Plan.

2.7.3 Management measures of Public Rights of Way (PRoW) during the construction phase are set out in the **Outline CTMP [EN0110014/APP/7.6]** and the **Outline Public Rights of Way and Permissive Paths Management Plan [EN0110014/APP/7.8]** (Outline PRoWPPMP).

2.8 Temporary Construction Laydown Areas / Compounds

2.8.1 The Works No's as set out in the **Draft DCO [AS-032]** make provision for temporary construction (and decommissioning) laydown areas. In this document and other application documents these are sometimes referred to as temporary construction compounds. Construction laydown areas and construction compounds are interchangeable. The **Design Principles, Parameters and Commitments** document **[APP-213]** sets out the parameters of the various laydown areas. The land accommodating the laydown areas will be reinstated following the construction phase.

2.9 Parking Provision

2.9.1 Temporary construction compounds would be established in the locations set out in the **Works Plan [EN0110014/APP/2.3]**. The temporary construction compounds would include car parking. It is anticipated that goods would be delivered by HGV to the temporary construction compounds and/or laydown areas then distributed to the point of need within the Order Limits using lighter vehicles (e.g. tractor and trailer) as required. The number

of parking spaces needed at each Site and Sub-Site is still to be confirmed but it is anticipated that the greatest level of provision will be associated with the temporary construction compounds.

2.9.2 Wheel cleaning facilities will be provided at each access point, positioned near the end of the access track before vehicles join the public highway. These facilities will be designed to remove mud and debris from vehicle wheels and undercarriages to prevent material being deposited on the highway. Vehicles will be visually inspected prior to departure to ensure cleanliness. If required, a road sweeper will be deployed in the vicinity of the access point to maintain highway safety and cleanliness. The wheel cleaning system will be maintained regularly to ensure it remains effective throughout the construction phase.

2.10 Site Waste Management

2.10.1 To control the waste generated during preparation and construction, the Contractor(s) will separate the main waste streams on the Sites, prior to transport to an approved, licensed third party waste facility for recycling or disposal.

2.10.2 A Site Waste Management Plan (SWMP) will be prepared before construction begins. The SWMP will detail the management, storage and legal disposal of materials during the construction phase. It will also outline the aims, objectives and ongoing management responsibilities, including practices for management and storage, and set targets for waste reduction, landfill diversion, and reuse. Once appointed, details of the waste carriers and contractors for the Scheme, along with copies of their appropriate licenses, will be included in the SWMP.

2.11 Security

2.11.1 The Sites will remain fully secured throughout the construction period to ensure safety and prevent unauthorised access. A robust perimeter fence or temporary fencing will enclose the construction areas, and CCTV surveillance will operate continuously within the temporary construction compounds to monitor activity. All newly constructed access tracks will be fitted with lockable gates positioned a safe distance from the public highway to avoid obstruction and maintain visibility.

2.12 Responding to Environmental Incidents and Emergencies

2.12.1 An Emergency Response Plan will be developed in consultation with the relevant planning authority, emergency services, as well as the Environment Agency. The Emergency Response Plan will detail the procedures for responding to incidents and emergencies on site, and any reporting.

2.13 Good Practice

2.13.1 The Considerate Constructors Scheme (CCS) (Ref - 5) will be adopted to assist in reducing pollution from the construction activities by employing good practice measures which go beyond statutory compliance.

2.14 Public Consultation and Liaison

2.14.1 Prior to commencing construction, the Contractor will implement a Stakeholder Communications Plan that includes community engagement and will detail a complaints procedure. In line with the Stakeholder Communications Plan, a display board will be installed on the Sites and a website will be set up. These will include contact details for the Site Manager or Community Liaison Manager with whom nuisance or complaints can be lodged, and the head or regional office contact information. A logbook of complaints will be managed by the Site Manager or nominated representative.

2.14.2 Any environmental complaints received will be investigated, with appropriate action taken and recorded, so that a full audit trail is available should the complainant raise the issue(s) with the local authority.

2.14.3 A CLG will be established to facilitate liaison between representatives of people living in the vicinity of the Order Limits and other relevant organisations in relation to the construction of the Scheme.

2.14.4 A Community Liaison Manager will be appointed to lead discussions with local communities during the construction phase.

2.15 Cable Route Construction

Cable Route Avoidance Areas

2.15.1 The details of the cable route, including the start and end points of the different construction methods (being open cut trench and trenchless technologies) for the CRC will be confirmed at the detailed design stage.

2.15.2 For the purposes of the DCO Application, there is a commitment to Avoidance Areas of certain environmental receptors, whereby open cut trenches and launch and reception pits associated with trenchless techniques, such as HDD will be located outside of the Avoidance Areas to minimise impacts. Avoidance Areas are locations where trenchless technologies rather than open cut trenches will be used to avoid certain environmental receptors within the CRC. The Avoidance Areas are set out in **Table 2.1**.

2.15.3 Any works relating to HDD activities will be undertaken in line with a Method Statement for each stage of construction of the CRC. Adherence to the Method Statement will be required when undertaking the trenchless

technology with any changes requiring approval from the Contractor and documented risk assessments.

2.15.4 A final Crossing Schedule of key infrastructure and environmental features will be provided for each stage of construction.

Table 2.1: Open Cut Trench Avoidance Areas (Trenchless Crossings)

Cable Route Corridor (see [EN0110014/APP/7.21])	Avoidance Area Reference (see [EN0110014/APP/7.21])	Crossing of Environmental Receptor
CRC10	CRC10A	Wash Lane, hedgerows, trees.
CRC10	CRC10B*	The Green, hedgerows, trees. * The Avoidance Area extends the length of the hedgerow and trees but excludes an area along the boundary of the CRC where there is a gap associated with existing access. This enables flexibility for the option to open cut trench through this gap.
CRC9	CRC9A	Norwich Lane, hedgerows, woodland.
CRC9	CRC9B	Lower Spring Wood County Wildlife Site, woodland, veteran hedge.
CRC8	CRC8A	Hedgerows.
CRC8	CRC8B	Hedgerow.
CRC8	CRC8C	Watercourse.
CRC Between Sub-Site 8A and Sub-Site 8B	A	River Tas main river, hedgerow.
CRC7	CRC7A	Bungay Road, hedgerow
CRC7	CRC7B	Fritton Grange Meadows County Wildlife Site, Hempnall Beck main river.
CRC6	CRC6A	Bungay Road, hedgerow.
CRC6	CRC6B	Hedgerow.
CRC6	CRC6C	Watercourse, hedgerow, woodland.
CRC5	CRC5A	Woodland, hedgerow.
CRC Between Sub-Site 4A and Sub-Site 4B	A	A140 Norwich Road, hedgerow.
CRC4	CRC4A	Hempnall Beck ordinary watercourse watercourse.
CRC4	CRC4B	A140 Norwich Road, hedgerow.
CRC3	CRC3A	Hedgerows, Carpenter's Walk, PRoW.

Cable Route Construction Access

2.15.5 Where practicable, temporary internal haul routes within the CRC will be designed to avoid impacts on watercourses. Where this is not practicable, temporary construction access ramps will be used for these crossings. This will take one of the following forms, which are listed in order of least to most impact and are likely to be appropriate, respectively, for the most to least sensitive features:

- Temporary construction access ramps that do not interfere with the channel (banksides, bed or water column);
- Temporary construction access ramps with in-stream supports or pre-cast structures with natural bed; or
- Temporary construction access ramps with closed culverts with artificial invert.

2.15.6 The type of crossing selected for the temporary construction access ramps will be determined at detailed design in consultation with the relevant planning authority.

3. Mitigation and Monitoring (Solar PV Arrays Areas, Project Substations, BESS)

3.1 Purpose

3.1.1 This section of the Outline CEMP sets out the mitigation measures to be included as a minimum in the detailed CEMP(s) pertaining to the Solar PV Arrays, BESS and Project Substations. It also sets out monitoring requirements and the responsible party identified for each mitigation measure or monitoring requirement. This section will be updated and developed following consent as part of the preparation of the detailed CEMP(s).

3.1.2 The mitigation measures pertaining to the National Grid Substation and Grid Connection Infrastructure are set out separately in Section 4.

3.2 Climate Change

Table 3.1: Climate Change

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Greenhouse Gas (GHG) impact on waste	The following comprises the outline Greenhouse Gas Reduction Strategy, which will be confirmed at the detailed design stage: ▪ Increasing recyclability by segregating waste at source to be re-used and recycled, where reasonably practicable; ▪ Reuse of materials on the Sites, wherever feasible, e.g. reuse of excavated soil for landscaping; ▪ Off-Site prefabrication, where practical, including the use of prefabricated elements; ▪ Adopting the CCS to assist in reducing pollution, including GHG, by employing good industry practice measures; ▪ Minimise the use of natural resources and unnecessary materials (e.g. reusing excavated soil for fill requirements); and ▪ Retention of existing vegetation as far as practicable.	To be confirmed in detailed CEMP(s).
GHG emissions from construction traffic and equipment	Appropriate standard and good practice control measures will be included in the detailed CEMP, which would include: ▪ Encouraging the use of lower carbon modes of transport by identifying and communicating local bus connections and pedestrian and cycle access routes to staff and providing appropriate facilities for the safe storage of cycles; ▪ Liaising with construction personnel for the potential to implement staff minibuses and car sharing options; ▪ Implementing a Construction Workers Travel Plan to reduce the volume of staff and employee trips; ▪ Switching vehicles and plant off when not in use (avoid idling) and ensuring construction vehicles conform to UK emissions standards; ▪ Explore the use of alternative fuels; ▪ Use of speed limits; ▪ Providing training to all personnel on pollution control and methods to minimise emissions; and ▪ Conducting regular planned maintenance of the plant and machinery to optimise efficiency.	To be confirmed in detailed CEMP(s).
Stronger winds, heatwaves, heavy precipitation and	Design commitments are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**.	The Contractor will monitor weather forecasts and receive Environment Agency's flood alerts

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
increased risk of fires/wildfires	Appropriate standard and good practice control measures will be included in the detailed CEMP, which would include: ▪ Contractor will monitor weather forecasts and plan works accordingly, protecting workers and resources from any extreme weather conditions; ▪ Health and safety plans and risk assessments will be required to account for potential climate change impacts on workers, such as flooding and heatwaves. This will include for the provision of flood defence equipment (e.g. sandbags) and good practice health management measures for staff working in heat such as staying hydrated and sun protection; ▪ Fire suppression system to rapidly action in case of fire; ▪ Protecting workers and resources from extreme weather conditions through appropriate PPE and working practices; and ▪ Using equipment's cooling systems where necessary/adapting working practices and equipment used based on weather conditions.	and plan works accordingly, protecting workers and resources from any extreme weather conditions such as storms, flooding.

3.3 Landscape and Visual

Table 3.2: Landscape and Visual

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Loss of existing landscape features, e.g., vegetation Visibility of construction activities	The **Outline LEMP [EN0110014/APP/7.4]** sets out the measures proposed to mitigate landscape (and ecological) features as far as practicable. This includes a hedgerow removal plan and the length of individual instances of temporary hedgerow removal. The construction phase measures contained within the detailed LEMP, which is to be prepared substantially in accordance with the **Outline LEMP [EN0110014/APP/7.4]**, will be adhered to in addition to the measures in the detailed CEMP. Management measures associated with the PRoW during the construction phase are set out in the **Outline PRoWPPMP [EN0110014/APP/7.8]**. Design buffers and Avoidance Areas are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]** and in the **Outline Cable Route Construction Statement [EN0110014/APP/7.21]**, respectively. The Avoidance Areas are secured within this Outline CEMP. The following measures will be adhered to during the construction phase: ▪ The use of visual screening, such as hoardings, will be implemented for more sensitive visual receptors in proximity to the Order Limits, including residential and PRoW; ▪ Ensuring a tidy and neat working environment and covering stockpiles in accordance with best practice measures; ▪ Construction works which create dust will incorporate damping measures to minimise dust generation on users of the PRoW and residential properties; ▪ Vegetation disturbance will be minimised and any bare ground resulting from construction will be re-seeded in accordance with the relevant measures set out in the **Outline LEMP [EN0110014/APP/7.4]**; and ▪ The principles for lighting relating to construction activities, as set out in **ES Volume 3, Appendix 7.11 – Lighting Strategy [EN0110014/APP/6.3.7.11]**, will be adhered to.	Refer to the **Outline LEMP [EN0110014/APP/7.4]** and detailed CEMP(s).
Additional tree removal or pruning, and/or impacts to roots	▪ A pre-construction tree survey will be undertaken prior to construction in accordance with BS 5837:2012 (or in line with most recent adopted standard and industry guidelines). This survey will inform the tree protection zones to be applied during construction;	Arboriculturist Supervision To be included within the AMS.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ An Arboricultural Method Statement (AMS) will be adopted incorporating best practice guidance set out in British Standard 5837:2012 'Trees in relation to design, demolition and construction'. The AMS will ensure retained trees are not adversely affected during the construction works; ▪ All tree work operations will be carried out in accordance with BS3998:2010 'Recommendations for Tree Work'; current arboricultural industry guidelines and best practice; and all relevant Health & Safety standards; ▪ Trees will be retained, where practicable, and will be subject to detailed design and the micro-siting of cables and Access Tracks. Where tree removal is unavoidable, trees of lower quality and life expectancy will be preferably removed over those of higher quality and life expectancy. Trees with a BS5837:2012 Quality Category of U shall be preferentially removed followed by Category C, B and A trees in that order of priority. Veteran/Ancient trees will not be removed; ▪ Tree removals will be marked by the Arboriculturist with final decisions made during detailed design and cable trench micro-siting. Only qualified arboricultural Contractors, in accordance with British Standard 3998:2010 (Ref 7), will perform tree work. Construction workers will not perform tree removals, unless qualified and specifically instructed by the Arboriculturist; and ▪ Hoarding and construction exclusion zones will be introduced around retained trees in accordance with the requirements of BS 5837:2012 'Trees in relation to design, demolition and construction'.	
Tree pruning	▪ Prior to any necessary tree pruning, the Arboriculturist will liaise with the Contractor on the requirements for pruning and will provide a specification for the pruning works which will then be implemented by a suitably qualified arboricultural Contractor working in accordance with British Standard 3998: 2010 'Tree Work – Recommendations' (Ref 7); and ▪ Pruning works to veteran trees will be avoided as far as reasonably practicable and pruning will aim to prioritise trees of low quality (BS5837:2012 Category U and C trees) over trees of moderate or high quality (BS5837:2012 Category A and B trees). No tree works will be undertaken by construction workers unless qualified and instructed to do so. All tree pruning works will have due consideration for ecological mitigation and protection.	Arboriculturist Supervision To be included within the AMS.
Root loss/damage or soil compaction within Root Protection Areas (RPA) and damage to canopies/stems	▪ Hoarding and construction exclusion zones will be introduced around retained trees and will consist of protective fencing. This will prevent entry of machinery, materials/spoil and excavations in the protected areas. In some instances, a wider working area may be necessary. In this instance and in consultation with the Arboriculturist, an amended location for the protective fencing will be agreed with the Arboriculturist and ground protection measures put in place. The protective fencing will remain in place throughout construction in the area and only be altered under the Arboriculturist supervision; ▪ The precise location of the protective fencing will be agreed between the Site Manger and the Arboriculturist before construction works commence;	Arboriculturist Supervision. All excavations taking place within the RPA of retained trees should be supervised by a suitably qualified arboriculturist. To be included within the AMS.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Construction vehicles will not be driven onto unsurfaced areas of ground within the RPA of any retained trees. If access is required for construction vehicles on unsurfaced areas of ground within the RPA of retained trees, ground protection will be installed. In accordance with BS5837:2012, ground protection will need to be fit for the purpose of supporting any traffic entering the RPA without causing compaction of the soil; ▪ Ground level decreases will not take place within the RPA of retained trees. Should ground level increases be required, this will be undertaken in consultation with an Arboriculturist; ▪ Micro-siting of the design will be used to minimise root disturbance, with cables designed to avoid RPAs of retained trees as far as practicable. If work within RPAs is unavoidable, the Agriculturist will supervise and guide precautionary measures. Potential excavation works inside the RPA will proceed using hand tools, compressed air and soil vacuum excavation techniques. These roots must not be severed at any time without first consulting the Arboriculturist. Any roots left exposed for a period of time will be wrapped in dry hessian sacking. Where practicable, any services will be fed beneath any exposed structural roots. Backfill will, where practicable, contain originally excavated material, and will include the placement of an inert granular material mixed with topsoil or sharp sand (not builder's sand) around roots; ▪ In trenchless crossings, trenchless crossing methods such as HDD will be utilised to avoid damaging roots, maintaining a minimum depth of 1m under RPA to the outer diameter edge of the bore; ▪ All machinery used for trenchless crossings will be situated outside the RPAs of retained trees. Both launch and reception pits will be a minimum distance of 15m of individual trees and groups of trees.	

3.4 Ecology and Biodiversity

Table 3.3: Ecology and Biodiversity

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Clearance or damage of habitat resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species **Potential for obtrusive light spill to impact on ecology** **Potential for spillages to enter watercourses and impact ecology** **Dust deposition on sensitive ecological receptors**	The **Outline LEMP [EN0110014/APP/7.4]** sets out the measures proposed to mitigate ecological (and landscape) features as far as practicable. This includes a hedgerow removal plan and the length of individual instances of temporary hedgerow removal. The construction phase measures contained within the detailed LEMP, which is to be prepared substantially in accordance with the **Outline LEMP [EN0110014/APP/7.4]**, will be adhered to in addition to the measures in the detailed CEMP. An **Outline Protected Species Mitigation Strategy [EN0110014/ APP/6.3.8.10]** has been submitted with the DCO Application. This sets out mitigation measures and approaches to be adopted which will avoid impacts occurring upon protected species (and associated habitats) through killing/injury, damage, pollution and disturbance during the construction phase. A detailed Protected Species Mitigation Strategy will be prepared substantially in accordance with the **Outline Protected Species Mitigation Strategy [EN0110014/ APP/6.3.8.10]**. Design buffers and Avoidance Areas are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]** and in the **Outline Cable Route Construction Statement [EN0110014/APP/7.21]**, respectively. The Avoidance Areas are secured in the **Outline CEMP [EN0110014/APP/7.1]** as described above. The following measures are to be employed during the construction phase: ▪ An ECoW will be designated at the onset of the construction phase, who will provide ecological supervision during the construction works which have the potential to impact protected and notable species, such as localised habitat clearance, ditch/watercourse engineering works, as appropriate; ▪ The principles for lighting relating to construction activities, as set out in **ES Volume 3, Appendix 7.11 – Lighting Strategy [EN0110014/APP/6.3.7.11]**, will be adhered to; ▪ Erection of tree protection fencing around woodland, trees and hedgerows in accordance with BS 5837:2012 ‘Trees in relation to design, demolition and construction’; ▪ Standard management measures will be implemented to prevent pollution incidents, minimise effects on ecology from noise and vibration, and prevent and minimise dust creation and air pollution. These management measures will include refuelling, storage of chemicals and	A pre-construction walkover will be undertaken in advance of mobilisation/any potential advance works to reconfirm the ecological baseline conditions and to identify any new ecological risks, such as new badger setts. Further pre-commencement surveys for protected species will be conducted, as advised by the Applicant’s ecologist, for example where tree modification or removal is proposed, where trees have potential to support roosting bats. Further protected species surveys, will be undertaken, where required. Such surveys will be undertaken sufficiently far in advance of construction works to account for seasonality constraints and to allow time for the implementation of any necessary mitigation, prior to construction. Reconfirmation of the status of protected species identified to inform mitigation requirements and support protected species licence applications, if required, and the requirement for any

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	hazardous materials in line with best practice guidelines, ensuring that they are secure and away from habitats of ecological value and watercourses and measures to prevent the deposition of sediment or other material in, and the pollution by sediment, of watercourses. This will include use of silt fencing, settlement areas where required, and adherence to Environment Agency pollution prevention guidance; ▪ Disturbance from noise will be minimised by the adoption of good working practice and BPM; ▪ Damping down of potential sources of dust; ▪ No fires will be permitted within the Order Limits; ▪ Erection of temporary fencing around works areas, protecting retained habitats of ecological value; ▪ Contractors will be briefed as to the possible presence of protected and notable faunal species, with particular reference to the implications of legislation and licensing inspections. Construction personnel will receive a Toolbox Talk detailing the presence of sensitive ecological features and will be informed of the location of buffer zones where vehicles should not track across and materials should not be stored within; ▪ Any trenches or deep pits that are to be left open overnight will be provided with a means of escape should a Badger or other mammal enter. Any trenches/pits will be inspected each morning to ensure no animals have become trapped overnight; ▪ In the event that one of more species that are listed as invasive non-native species is recorded within the construction areas at the time, a Method Statement 11 of the **Outline Protected Species Mitigation Strategy [EN0110014/APP/6.3.8.10]** will be followed; ▪ Habitat and hedgerow removal will be reinstated as soon as practicable through hedgerow and grassland replanting/translocation/re-seeding; and ▪ The potential loss of active nests during construction will be avoided by either undertaking clearance of potential bird nesting habitat outside of the bird nesting season (March to August inclusive) or, if necessary, preceding any clearance with an inspection by a suitably qualified ecologist. Any nests identified will be cordoned off and protected until they cease to be active. Where necessary, the use of bird scarers or other deterrence methods will be used to minimise the risk of ground nesting birds occupying open ground once construction works have commenced; and ▪ The storage of topsoil or other ‘soft’ building materials in the Sites will be given careful consideration. These will be subject to inspections by Contractors with consideration given to temporarily fencing to exclude Badgers.	EcoCoW supervision during the construction phase.

3.5 Water Environment

Table 3.4: Water Environment

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Minimise the risk of flooding, surface water runoff, and pollution to waterbodies	Design buffers and Avoidance Areas are incorporated into the design of the Scheme to reduce impacts as far as practicable. These, together with drainage design commitments for Access Tracks and watercourse crossings in the Sites, are set out and secured in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. Where practicable, during the construction phase, a minimum buffer of 10m would be preserved from the top of banks of main rivers and watercourses, including temporary construction compounds. The Avoidance Areas and temporary construction over watercourses in the CRC (as described above) are secured via this **Outline CEMP**. No temporary construction compounds and stockpiles would be located within Flood Zones 2 and 3 or within areas of higher surface water flood risk/major surface water flow routes based on the Environment Agency's surface water flood risk mapping (as of September 2026) (see **ES Volume 3, Appendix 9.1 - Flood Risk Assessment & Outline Surface Water Drainage Strategy [EN0110014/APP/6.3.9.1]**). Construction works specifically in areas located within Flood Zone 3 would not be undertaken when an Environment Agency Flood Warning is in place. An Emergency Response Plan will include details for pollution prevention and will be prepared and included alongside the detailed CEMP. An Emergency Response Plan will be included alongside the detailed CEMP(s). A detailed surface water drainage strategy will be prepared prior to construction of the Scheme, with drainage requirements associated with the construction phase included in the detailed CEMP. Temporary drainage systems will be developed to prevent runoff contaminated with fine particulates from entering surface water drains without treatment. Good practices will be incorporated into the detailed CEMP and will include but not limited to: <u>Management</u> ▪ The Contractor will ensure that construction workers are fully aware of the procedures to be followed in the event of an accidental pollution event occurring. This will be included in the	Temporary drainage will be monitored throughout construction. Specific details will be confirmed in the detailed CEMP(s). A Water Management Plan (which will form part of a detailed CEMP(s)) will include details of pre-construction, construction, and post-construction water quality monitoring. This will be based on a combination of visual observations and reviews of the Environment Agency's automatic water quality monitoring network.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	induction and training, with an emphasis on procedures and guidance to reduce the risk of water pollution; and ▪ If any suspected contaminated material is discovered during the works, the Contractor will be required to investigate the areas and assess the need for containment or disposal of the material. If material is considered to be contaminated, it will be disposed of to an appropriately licensed facility. <u>Traffic/Vehicles</u> ▪ Limit HGV movements to temporary construction compounds as far as practicable; ▪ Fuel delivery vehicles will only be allowed as far as the temporary construction compounds; ▪ Fuel will be stored and used in accordance with the Control of Substances Hazardous to Health Regulations 2002,the Control of Pollution (Oil Storage) (England) Regulations 2001, the Oil Storage Regulations for Businesses guidance – GOV.UK , Pollution Prevention for Businesses guidance – GOV.UK, and CIRIA C736 'Containment Systems for the Prevention of Pollution' where relevant; ▪ Any plant, machinery or vehicles will be regularly inspected and maintained to ensure they are in good working order and clean for use; and ▪ Wheel cleaning facilities will be provided at each access point, positioned near the end of the access track before vehicles join the public highway. Mud will be controlled at entry and exits to the Sites using wheel washes and/or road sweepers. ▪ Where wheel cleaning is required, dry (waterless) rumble grid or other suitable facilities will be provided to minimise mud and debris being deposited on to the public roads. Where wheel washing is required, it will be undertaken in designated impermeable or lined areas, with wash water contained and either recycled or removed off site by a licensed contractor. The wheel washing system will implement rumble grids to dislodge accumulated dust and mud prior to leaving the Sites where reasonably practicable. Signage will be put in place to direct all vehicles to use wheel wash facilities. <u>Earthworks</u> ▪ The relevant sections of BS 6031:2009 Code of Practice for Earthworks (Ref - 8) will be followed for the general control of drainage; ▪ Major construction works (e.g., large-scale earthworks) will be minimised during heavy precipitation events as far as practicable; ▪ Cut-off ditches or geotextile silt-fences, installed around excavations, exposed ground and stockpiles will be implemented, where required, to prevent uncontrolled release of sediments; ▪ Where necessary, silt mitigation methods will be implemented in the channel;	

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Earth stockpiles will be seeded as soon as practicable, covered with geotextile mats or surrounded by a bund; and ▪ Excavated soils will be managed and stored in accordance with the **Outline Soils Resource and Management Plan [EN0110014/APP/7.9]**. <u>Drainage, Storage and Handling</u> ▪ Temporary drainage system will be developed to prevent runoff contaminated with fine particulates from entering surface water drains without treatment; ▪ Runoff and pollution from temporary construction compounds will have separate drainage and be managed using bunding, silt traps, oil drip trays, silt lagoons and/or filter drains. Oil drip trays will be utilised and be inspected. Any polluting materials suctioned out and stored in a bunded tank will be removed for disposal; ▪ The temporary construction compounds will include a bunded and impermeable refuelling area, and operations will only be permitted where they comply with the Contractor's method statements; ▪ Discharge to watercourses will only be permitted where discharge consent or other relevant approval has been obtained (where necessary or required); ▪ All reasonably practicable measures will be taken to prevent the deposition of sediment or other material in, and the pollution by sediment of, any watercourse, arising from construction activities. These measures will include soil bunds/silt traps where ground level differences occur; ▪ Waste/debris to be prevented from entering main rivers and watercourses; ▪ The storage and handling of materials will be undertaken in temporary compounds/designated areas, away from main rivers and watercourses. Temporary compounds/designated areas will be kept secure to prevent vandalism that could lead to a pollution incident; ▪ Plant and machinery will be kept away from surface waterbodies, wherever practicable. Equipment and plant to be washed and cleaned in temporary construction compounds, where runoff can be isolated for treatment before disposal; ▪ All chemicals will be stored in a secure impermeable and bunded area and accordance with the Control of Substances Hazardous to Health (COSHH) guidelines. Spillage kits will be held, and personnel will be trained in their use. The Environment Agency will be informed, as soon as reasonably practicable, in the unlikely event of a suspected pollution incident; ▪ As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses; ▪ Where a trenchless crossing technique is used such as HDD, a breakout contingency procedure will be included in the detailed CEMP(s) to manage any accidental releases of	

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	drilling fluid. This will include monitoring for loss of drilling fluid during the works such that any losses can be rapidly identified, alongside immediate containment and clean-up measures; ▪ 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; and ▪ If the volume of dewatering is likely to exceed the limit outlined in the Environment Agency's Temporary dewatering from excavations to surface water: RPS 261 then permits for dewatering will be applied for by the contractor. <u>Concrete/Foundations</u> ▪ Foundations and services will be designed and constructed to prevent the creation of pathways for the migration of contaminants and will be constructed of materials that are suitable for the ground conditions and designed use; ▪ A Foundation Works Risk Assessment will be completed prior to the start of any work associated with the foundations of the Project Substations, BESS and National Grid Substation, supported by the Ground Investigation data. This will be undertaken in line with the Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention (CL:AIRE, 2025) (Ref - 9); and ▪ Should concrete feet be required for isolated areas in the Solar PV Arrays, these will be pre-cast concrete. <u>Foul Drainage</u> ▪ Foul water from welfare facilities will be contained within sealed systems and tankered away. <u>Water Resource</u> ▪ Water neutrality options have been given priority to reduce the supply requirements. These options include rainwater harvesting, water storage, and water tankering (to meet peak demand). Tankering is the preferred method.	

3.6 Cultural Heritage

Table 3.5: Cultural Heritage

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Setting of heritage assets	The management of historic hedgerows will be undertaken in accordance with the Hedgerow Removal Plan as set out in the **Outline LEMP [EN0110014/APP/7.4]**. Where removal is required, no more than 10m will be removed in accordance with the **Outline LEMP [EN0110014/APP/7.4]** The locations of the temporary construction compounds will be sited where practicable to avoid areas of archaeological sensitivity and to be unobtrusive to the settings of heritage assets as far as practicable.	Refer to the **Outline LEMP [EN0110014/APP/7.4]** and to be detailed CEMP(s).
Minimise / prevent harm to buried archaeological features	**ES Volume 3, Appendix 10.6 - Archaeological Mitigation Strategy [EN0110014/APP/6.3.10.6]** provides details of the overarching methodology for undertaking a programme of archaeological mitigation. Where possible, there will be a preference to conserve buried archaeological deposits through mitigation by design which will minimise impact to an acceptable level agreed with the Local Planning Authority archaeological advisor (i.e. where impact is of such a low level that it is effectively preservation in situ). Where this is not achievable, mitigation by record will be undertaken in the form of archaeological excavation and/or archaeological monitoring. In some instances, the archaeological excavation may be designed to compensate for impacts beyond the area of excavation. **ES Volume 3, Appendix 10.6 - Archaeological Mitigation Strategy [EN0110014/APP/6.3.10.6]** also sets out the scope of mitigation fieldwork for geophysical survey, informative trenching, geoarchaeological assessment archaeological excavation and archaeological monitoring, together with a recording strategy. It has been agreed with Norfolk County Council Historic Environment Service that the impact of piling for the Solar PV Panel support structures is of such a low level that it will not compromise the integrity of the archaeological or limit the ability to understand the remains should archaeological investigation be carried out at a future date, with the proviso that certain archaeological features would need to be avoided or fully excavated. Such features would include (but are not limited to) structures, waterlogged remains, features with high artefactual or environment potential, industrial features and human remains. Should such features be identified by the informative trenching this would require either the adjustment of the pile layout to avoid particular archaeological features and/or the targeted use of concrete feet rather than piles to support the panel support structure. It is not envisaged that extensive areas will require this treatment, but any such works would be targeted and localised.	Provision for archaeological monitoring is detailed in **ES Volume 3, Appendix 10.6 - Archaeological Mitigation Strategy [EN0110014/APP/6.3.10.6]**. All archaeological works will be undertaken by a suitably qualified and experienced archaeologist. The Archaeological Contractor for each stage of work will be a CIfA Registered Archaeological Organisation. Norfolk County Council Historic Environment Service will monitor implementation of the programme of works on behalf of the Local Planning Authority and evaluate the work being undertaken against the methodology in **ES Volume 3, Appendix 10.6 - Archaeological Mitigation Strategy [EN0110014/APP/6.3.10.6]**.

3.7 Transport and Access

Table 3.6: Transport and Access

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Increased traffic that will impact both motorised users and non-motorised users	Avoidance Areas are incorporated into the design of the Scheme as set out in the **Outline Cable Route Construction Statement [EN0110014/APP/7.21]** and secured within this Outline CEMP. During construction, the Contractor will ensure that the impacts from construction traffic are minimised on the Local Road Network, where reasonably practicable, by implementing the traffic management measures set out in the **Outline CTMP [EN0110014/APP/7.6]**. The **Outline CTMP [EN0110014/APP/7.6]** also provides construction access arrangements, internal haul routes and construction vehicle routing. It also provides a Framework Construction Worker Travel Plan. Measures are set out within the **Outline CTMP [EN0110014/APP/7.6]** for the control of vehicles associated with the construction phase. Good practices will be incorporated into the detailed CTMP and will include but not limited to: ▪ Adherence to designated routes. ▪ Vehicle Booking Management System will be implemented for scheduling arrivals and departures. ▪ The Contractor will engage with suppliers and hauliers prior to any scheduling of deliveries to ensure that the scheduling system and process is clearly understood and that drivers are aware of the process for communicating with the Site Manager if there are any unforeseen issues with arrivals or departures. ▪ Temporary road signage will be installed along the traffic routes to inform all road users of the construction works and to direct traffic to and from the various accesses. ▪ Temporary traffic management may be needed to protect the integrity of the public highway and the safety of road users; ▪ Wheel cleaning facilities will be provided at each access point, positioned near the end of the access track before vehicles join the public highway; ▪ Signage will be installed along the PRoW to inform users about construction activity. The signs will provide information on construction times and contact details for a Public Liaison Officer; ▪ Traffic Marshals or Banksmen will be positioned where relevant along a PRoW impacted by traffic to hold vehicles if a PRoW user is present and advise PRoW users of the potential for vehicles; ▪ Speeds to be limited to 5-10mph near PRoW;	Further details to be confirmed in the detailed CEMP, detailed CTMP and detailed PROWPPMP. Any unforeseen issues that arise in relation to construction vehicle movement will be logged by the Site Manager. If necessary, the issues will be discussed with the local highway authority so that they can be resolved as appropriate.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Any damage to the surface of the PRoW directly attributable to the Scheme will be repaired as soon as practicable; and ▪ Contact details for the Site Manager will be provided to the local highway authority prior to the commencement of works. These details will also be displayed on an information board at all access points. Members of the local community who have questions or concerns during the construction phase will be able to contact the Site Manager. All AIL movements required as part of the construction phase will be managed by a specialist haulage contractor to ensure safety and compliance with the relevant standards, management protocols and notification processes at the time. Traffic management arrangements will be agreed in advance with National Highways, local highway authority and other relevant local highway authorities, structures' owners and the police, where necessary, before any AIL movements take place. PRoW will be managed during the construction phase by the measures set out in the **Outline PRoWPPMP [EN0110014/APP/7.8].** There are likely to be instances where Access Tracks cross PRoW. In these instances, public access to PRoW will be retained so far as is practicable to do so. However, the PRoW will be managed to ensure the safety of all users. A detailed CTMP and detailed PRoWPPMP will be produced prior to the commencement of the construction phase.	

3.8 Noise and Vibration

Table 3.7: Noise and Vibration

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Noise and vibration due to construction activities causing annoyance at Noise Sensitive Receptors (NSR) **Construction traffic, plant and machinery noise at nearby NSR**	Contractors will be required to ensure that works are carried out in accordance with BPM as stipulated in the Control of Pollution Act and as specified in BS 5228-1. Noise control measures will be consistent with the recommendations of the current version of BS 5228 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' – 'Part 1: Noise' and 'Part 2: Vibration' (BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014) (Ref - 4). Good practices will be incorporated into the detailed CEMP/Construction Method Statements and will include but not limited to: ▪ Using 'silenced' plant and equipment, as appropriate; ▪ Switching off engines where vehicles are standing for a significant period of time; ▪ Fitting acoustic enclosures to suppress noisy equipment, as appropriate; ▪ Operating plant at low speeds and incorporating automatic low speed idling; ▪ Selecting less noisy equipment where practicable, such as: electrically-driven rather than internal combustion powered plant hydraulic powered rather than pneumatic equipment; and wheeled rather than tracked vehicles; ▪ Properly maintaining all plant (greased, blown silencers replaced, saws kept sharpened, teeth set and blades flat, worn bearings replaced etc.); ▪ Where necessary and appropriate, use temporary screening or enclosures for static noisy plant to reduce impacts; ▪ Certifying plant to meet any relevant EC Directive standards; and ▪ Undertaking awareness training of all contractors in regard to BS 5228 (Parts 1 and 2).	A construction noise monitoring scheme will be developed and agreed with the relevant planning authority following appointment of a Contractor and prior to commencement of construction works. The detailed CEMP(s) will also set out a scheme for the provision of monthly reporting information to and from local residents to advise of potential noisy works that are due to take place and for monitoring of noise complaints and reporting to the Applicant or their appointed Contractor for immediate investigation and action. Further details are to be confirmed in the detailed CEMP(s). Section 61 consent will be sought from the relevant planning authority where works are anticipated to generate significant noise effects outside of standard working hours. The consent, where granted, will define noise limits, monitoring requirements and mitigation measures to be implemented during construction

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Trenchless crossing/ night-time construction noise	The precise locations and requirements for trenchless drilling (e.g. HDD) works will be confirmed once a Contractor is appointed. To manage the risk of significant noise effects, particularly during potential night-time activity, a staged approach to mitigation will be applied. Mitigation measures to be implemented include: ▪ The Contractor will review alternative plant and equipment options and may adopt quieter machinery, where reasonably practicable; and ▪ To reduce noise propagation, temporary acoustic barriers will be installed around the trenchless drilling working areas, where appropriate. Where the screening fully obstructs line of sight between the source and receptors, reductions of approximately 5 to 10 dB may be achievable. If required, the Applicant will seek prior consent for noisy works under Section 61 of Control of Pollution Act. A Section 61 submission will describe the construction methods, predicted noise levels, proposed working hours, monitoring strategy, communication protocols with the relevant planning authority and the mitigation techniques to be employed. The purpose of the submission is to demonstrate that noise and vibration have been controlled as far as reasonably practicable.	A construction noise monitoring scheme will be developed and agreed with the relevant planning authority following appointment of a Contractor and prior to commencement of construction works. The detailed CEMP(s) will also set out a scheme for the provision of monthly reporting information to and from local residents to advise of potential noisy works that are due to take place and for monitoring of noise complaints and reporting to the Applicant or their appointed Contractor for immediate investigation and action. Further details are to be confirmed in the detailed CEMP(s).

3.9 Air Quality

Table 3.8: Air Quality

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Fugitive dust emissions during the construction works	Appropriate mitigation and control measures will be included in the detailed CEMP, which will include: <u>Communications:</u> ▪ Develop and implement a Stakeholder Communications Plan that includes community engagement before construction work commences; ▪ Display the name and contact details of person(s) accountable for air quality and dust issues on the Sites. This may be the Environmental Manager or the Site Manager; and ▪ Display the Contractor's head or regional office contact information. <u>Management:</u> ▪ Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the relevant planning authority; ▪ Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken; ▪ Make the complaints log available to the local authority when asked; ▪ Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the logbook; and ▪ Hold regular liaison meetings with other high-risk sites within 250m of the Order Limits to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes. <u>Preparing and Maintaining the Site:</u> ▪ Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is practicable; ▪ Erect solid screens or barriers around dusty activities that are at least as a high as any stockpiles;	The overall responsibility will be with the Applicant. Specific responsibilities will be confirmed in the detailed CEMP. The following monitoring will be undertaken: ▪ Undertake daily inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authorities when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100m of the Order Limits, with cleaning to be provided if necessary. ▪ Carry out regular inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authorities when asked.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Fully enclose specific operations where there is a high potential for dust production and the site is active for an extensive period; ▪ Avoid runoff of water or mud; ▪ Keep fencing, barriers and scaffolding clean using wet methods; ▪ Remove materials that have a potential to produce dust as soon as practicable, unless being re-used on the Sites. If they are being reused on the Sites, cover as described below; and ▪ Cover, seed or fence stockpiles to prevent wind whipping. <u>Operating Vehicle/Machinery and Sustainable Travel:</u> ▪ Ensure all vehicles/machinery are switched off when stationary/not in use - no idling vehicles; ▪ Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment, where practicable; and ▪ Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas (if long haul routes are required, these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of relevant planning authority, where appropriate). <u>Operations:</u> ▪ Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems; ▪ Ensure an adequate water supply for effective dust/particulate matter suppression/mitigation, using non-potable water where practicable and appropriate; ▪ Use enclosed chutes and conveyors and covered skips; ▪ Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate; and ▪ Ensure equipment is readily available to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. <u>Waste Management:</u> ▪ No bonfires or burning of waste materials.	▪ Increase the frequency of inspections by the person accountable for air quality and dust issues when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. ▪ Agree real-time PM_{10} (including $PM_{2.5}$) continuous monitoring locations with the relevant planning authority. Where practicable, commence baseline monitoring at least three months before construction works commence.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	Earthworks: ▪ Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable; ▪ Use Hessian, mulches or tackifiers where it is not practicable to re-vegetate or cover with topsoil, as soon as practicable; and ▪ Only remove the cover in small areas during work and not all at once. Construction: ▪ Avoid scabbling (roughening of concrete surfaces) where practicable; ▪ Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place; ▪ Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery; and ▪ For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust. Trackout: ▪ Use water-assisted dust sweeper(s) on the access and local roads to remove as necessary any material tracked out; ▪ Avoid dry sweeping of large areas; ▪ Ensure vehicles entering and leaving are covered to prevent escape of materials during transport; ▪ Inspect haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable; ▪ Record all inspections of haul routes and any subsequent action in a logbook; ▪ Install hard surfaced haul routes, where practicable, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned; ▪ Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the Sites where reasonably practicable); ▪ Access gates to be located at least 10m from receptors where practicable; and	

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the exit, wherever size and layout permits.	
Vehicle and plant emissions during the construction works	Vehicles will be correctly maintained and operated in accordance with manufacturer's recommendations and in a responsible manner. All Non-Road Mobile Machinery will be compliant with the requirements of EU Directive 2016/1628. All off-road vehicles comply with the requirements of the Non-Road Mobile Machinery (NRMM) standards, where applicable. Use stage 4 NRMM as a minimum and stage 5 where practicable. All plant and vehicles will be required to switch off their engines when not in use and when it is safe to do so. In addition, plant and vehicles will conform to relevant applicable standards available at time of construction. At present time the standards for the vehicle types for use in demolition is as follows: ▪ Euro 4 (Oxides of Nitrogen (NOx)) for petrol cars, vans and minibuses; ▪ Euro 6 (NOx and PM) for diesel cars, vans and minibuses; and ▪ Euro 6 (NOx and PM) for lorries, buses, coaches and HGV (excluding AIL).	The overall responsibility will be with the Applicant. Specific responsibilities will be confirmed in the detailed CEMP(s).

3.10 Socio-Economics

Table 3.9: Socio-Economics

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Disruption to residents, businesses, tourism and recreation	Design buffers are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. A CLG will be established as described above in Section 2.13. As set out in the **Outline PRoWPPMP [EN0110014/APP/7.8]**, PRoW will be managed during the construction works. There are likely to be instances where Access Tracks cross PRoW. In these instances, public access to PRoW will be retained so far as is practicable to do so. However, the PRoW will be managed to ensure the safety of all users. This will include, but not limited to: ▪ Signage will be installed along the PRoW to inform users about construction activity. The signs will provide information on construction times and contact details for a Public Liaison Officer; ▪ Traffic Marshals or Banksmen will be positioned where relevant along a PRoW impacted by traffic to hold vehicles if a PRoW user is present and advise PRoW users of the potential for vehicles; ▪ Speeds to be limited to 5-10mph near PRoW; and ▪ Any damage to the surface of the PRoW directly attributable to the Scheme will be repaired as soon as practicable.	A Community Liaison Manager will be appointed, to whom any comments, concerns or complaints about the construction works of the Scheme can be raised, either directly by members of the public, or via elected representatives on parish or town councils, councillors, and Members of Parliament. This role will be used to continue open channels of communication between the community and the operators of the Scheme.
Impacts to tourism and recreation as a result of an influx of construction workers	The Contractor will provide support for workers to find suitable private rental accommodation, hotels or other serviced accommodation.	To be set out in the detailed CEMP.
Impacts to economic activity and employment	The Applicant will implement employment and skills measures designed to maximise local benefits. These will include the creation of apprenticeship and trainee opportunities, targeted engagement with local education providers and STEM organisations, and collaboration with council initiatives. The Applicant will seek to source services from local contractors and sub-contractors where feasible and advertise jobs through local channels. Measures are incorporated into the **Outline Employment, Skills and Supply Chain Strategy [EN0110014/APP/7.8]**.	To be confirmed in the detailed Employment, Skills and Supply Chain Strategy.

3.11 Soils and Agriculture

Table 3.10: Soils and Agriculture

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Impact on agricultural land and soils	The **Outline Soil Resource and Management Plan [EN0110014/APP/7.9]** (Outline SRMP) sets out good practice to soil management, handling, stockpiling and reinstatement to minimise potential effects on soils and agricultural land quality, as far as practicable. The **Outline SRMP [EN0110014/APP/7.9]** sets out the measures that will be developed in the detailed Soil Resource Management Plan (SMP).	A suitably qualified soil practitioner will undertake such tasks as the assessments of soil suitability for handling, or who will otherwise be able to instruct the Contractor on how to undertake the necessary tests. An Agricultural Liaison Officer will act as a liaison between the landowners and the Contractor.

3.12 Human Health

Table 3.11: Human Health

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Impacts on human health	Design buffers are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. Embedded design also includes permissive paths and community accessible space. Landscaping mitigation, including for visual screening, is included in the **Outline LEMP [EN0110014/APP/7.4]**.	To be confirmed in the detailed CEMP(s).
Disruption to users of PRoW	As set out in the **Outline PRoWPPMP [EN0110014/APP/7.8]**, PRoW will be managed during the construction works. There are likely to be instances where Access Tracks cross PRoW. In these instances, public access to PRoW will be retained so far as is practicable to do so. However, the PRoW will be managed to ensure the safety of all users. This will include, but not limited to: ▪ Signage will be installed along the PRoW to inform users about construction activity. The signs will provide information on construction times and contact details for a Public Liaison Officer; ▪ Traffic Marshals or Banksmen will be positioned where relevant along a PRoW impacted by traffic to hold vehicles if a PRoW user is present and advise PRoW users of the potential for vehicles; ▪ Speeds to be limited to 5-10mph near PRoW; and ▪ Any damage to the surface of the PRoW directly attributable to the Scheme will be repaired as soon as practicable.	A Community Liaison Manager will be appointed, to whom any comments, concerns or complaints about the construction works of the Scheme can be raised, either directly by members of the public, or via elected representatives on parish or town councils, councillors, and Members of Parliament. This role will be used to continue open channels of communication between the community and the operators of the Scheme.
Disruption to the local community	A Community Liaison Manager will be appointed, to whom any comments, concerns or complaints about the construction works of the Scheme can be raised, either directly by members of the public, or via elected representatives on parish or town councils, councillors, and Members of Parliament. This role will be used to continue open channels of communication between the community and the operators of the Scheme.	To be confirmed in the detailed CEMP(s).
Disruption to the provision of care services, social and healthcare facilities	The Applicant or their appointed Contractor will be required to keep in direct contact with the operators of care homes and service providers ahead of and during construction, to ensure that operators at these receptors are suitably resilient to reduce the likelihood of construction impacts affecting the functional operation and quality of environment for residents and users.	To be confirmed in the detailed CEMP(s).

3.13 Ground Conditions

Table 3.12: Ground Conditions

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Drilling fluid seepage to surrounding environment	In the event of surface seepage, contamination will be contained and cleaned up using sandbags and a vacuum tanker. Any surplus drilling fluid will be recovered from entry/exit pits post installation by a specialist waste management company. This fluid will be collected and disposed of at a licensed facility. An Emergency Response Plan will include details for pollution prevention and will be prepared and included alongside the detailed CEMP(s). Any pollution incident involving break out of drilling fluid into a watercourse must be immediately reported to the Environment Agency Incident line 0800 80 70 60 to enable the situation to be assessed as soon as possible.	No monitoring required.
Displacement and exposure of contaminated soils **Interaction with unstable ground** **The discovery of ground contamination during groundworks** **Potential for risks to human health**	▪ Excavated soils will be managed and stored in accordance with the **Outline SRMP [EN0110014/APP/7.9]**; ▪ A Ground Investigation will be undertaken prior to commencing construction works. Results will be reviewed by the Contractor and will be used to inform the design of the Scheme. The ground investigation will cover geotechnical and geoenvironmental matters and will be undertaken in accordance with the relevant standards and guidance, including BS 10175:2026. It is envisaged that the ground investigation will include the following: - Boreholes to at least the full depth of the proposed PV array foundations, and mechanically excavated where necessary throughout the Order Limits to investigate the ground conditions. - Deep boreholes at the locations of the Project Substations, BESS and National Grid Substation, to inform the design of the piled foundations for these structures. The boreholes will extend to at least the full depth of the proposed piled foundations. - Groundwater monitoring installations will be installed within boreholes where shallow groundwater is encountered. - In-situ geotechnical analyses. - Recovery of soil, groundwater and surface water samples. The groundwater and surface water sampling methodologies will include in-situ measurements of water quality (typically pH, temperature, electrical conductivity, turbidity, redox potential, dissolved oxygen, subject to confirmation in the ground investigation specification post-consent). It is envisaged that for groundwater sampling this will be achieved by using a multi-	The Environmental Manager will regularly record compliance in a logbook. To be confirmed in the detailed CEMP(s). A Ground and Surface Water Monitoring Plan.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	parameter sonde and for surface water sampling this will be achieved using a suitable handheld meter (or meters, as appropriate). - An extended period of surface water sampling sufficient to provide a baseline surface water quality dataset. - Geotechnical and geoenvironmental laboratory analysis, using UKAS accredited laboratories and MCERTS approved methods where available. ▪ Inclusion of the Unexploded Ordnance (UXO) measures recommended in the UXO Desk Study and Constraints Assessment of **ES Volume 3, Appendix 16.1 - Phase 1 Ground Conditions Assessment [EN0110014/APP/6.3.16.1]** into the detailed CEMP(s); ▪ A Foundation Works Risk Assessment will be undertaken post-consent for structures requiring deep foundations and/or piling such as the Project Substations, BESS and National Grid Substation; ▪ Where trenchless crossings interact with Principal or Secondary A Aquifers or pass beneath surface watercourses or sensitive ecological receptors, a Hydrogeological Risk Assessment will be undertaken, if required; ▪ The Construction (Design and Management) Regulations 2015 (Ref - 14) (CDM) regulate the health, safety and welfare of construction projects and will apply to the Scheme. A Principal Designer and a Principal Contractor will be appointed to plan, manage, monitor, and coordinate health and safety during the pre-construction and construction phase. The Principal Contractor will have responsibility for ensuring legislative compliance and obtaining all permits/licenses as required. The CDM Regulations require a pre-construction information pack (PCIP) to be provided by the Applicant (the 'Client' under CDM) or by the Principal Designer/appointed Contractor if the Client delegates this duty, which will be complied with. The PCIP will contain all information that is held or is readily available and will be used by the Principal Contractor to prepare construction phase risk assessments and method statements. The risk assessments will be informed by the findings of the Ground Investigation; ▪ Occupational health and safety measures e.g. PPE and statutory health and safety compliance (e.g. compliance with the Confined Spaces Regulations, 1997 (Ref - 15), in relation to ground gas from working in confined spaces or trenches) will minimise the risks associated with potential contamination; ▪ Appropriate training of construction workers in the handling and use of potentially hazardous substances and the associated risks; ▪ The control of earthworks or materials movement (including any re-use of materials) will only be undertaken in accordance with appropriate environmental permits, exemptions, or the CL:AIRE The definition of Waste: The development industry code of practice (Ref - 16); ▪ Any temporary dewatering activities during construction will be undertaken in accordance with Environment Agency guidance and will include appropriate assessment undertaken as required by the guidance (Ref - 17). If required (due to extracting more than 20 metres cubed	

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	of groundwater per day), an Abstraction Licence and Environmental Permit will be obtained for the discharge. Such works will be limited to the depth and time required to facilitate construction activities; ▪ An awareness briefing regarding ground conditions and appropriate methods of working to limit disturbance of potentially contaminated soil or water will be provided; ▪ Measures to minimise exposure to contaminated soils e.g. by controlling dust generation and the adoption of good hygiene standards; ▪ Following completion of a Ground Investigation, the measures identified to minimise and control runoff and/or leaching to controlled waters will be implemented accordingly; ▪ Prevention measures including maintenance of construction vehicles, bunded storage, designated wheel washing areas, settling basins, screening stockpiles of materials, and dampening exposed soils as appropriate, will be implemented; ▪ A protocol for dealing within any unexpected contamination will be developed by the Principal Contractor and will include: - Details of a watching brief and toolbox talks; - Details regarding how any affected area will be delineated, protected, investigated and assessed; - The qualifications and competencies of the person appointed to oversee the works; - The preparation of a method statement for how the contamination will be dealt with or remediated (as appropriate); - An escalation policy describing when and how any notifications and approvals will be agreed with the relevant planning authority; and - Details of verification procedures for any mitigation or remediation works. ▪ Any confined space entry, i.e. entry to open trenches or excavations, will be preceded by checks using appropriate instrumentation to detect the presence of methane, carbon dioxide or hydrogen sulphide, or low oxygen conditions. Trenchless techniques to be used where peat encountered adjacent to Hempnall Beck in Fritton Grange Meadows County Wildlife Site. Mitigation against loss of peat soils will be principally via design. The trenchless crossing will be limited diameter and would not form a cut-off to groundwater flow or remove water supply to the overlying peat. The design of the Scheme will be informed by the Ground Investigation, meaning that appropriate contamination-resistant materials will be utilised, should contamination be found to be present.	

3.14 Minerals

Table 3.13: Minerals

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Impacts on mineral resources	In relation to the areas of the CRC underlain by safeguarded mineral deposits (CRC6 and CRC8), the following will apply: ▪ The Ground Investigation will include an assessment of the likely volume of excess mineral that will be generated; ▪ The cable trench will be constructed by first removing the topsoil and subsoil and stockpiling this material separately; ▪ Where the results of the Ground Investigation have indicated that the mineral deposits may be suitable for re-use, any such suitable sand and gravel deposits will be separately stockpiled; and ▪ Any excess mineral deposits will be stockpiled for re-use within the Order Limits.	To be confirmed in the detailed CEMP(s).

3.15 Materials and Waste

Table 3.14: Materials and Waste

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately **Impacts on waste recycling and handling facility capacity**	The Contractor will consider the objectives of sustainable resource and waste management and seek to use material resources efficiently, reduce waste at source, reduce waste that requires final disposal to landfill and apply the principles of the waste hierarchy. This will include, where reasonably practicable, segregation of construction materials for appropriate re-use, recycling and recovery with landfill as a last resort. A Site Waste Management Plan (SWMP) will be developed alongside the detailed CEMP(s) to ensure construction waste is managed. A SWMP is to be prepared before construction begins. The SWMP will detail the efficient management, storage, and legal disposal of materials during the Construction Phase. It will also outline the aims, objectives, and ongoing management responsibilities, including practices for management and storage, and set targets for waste reduction, landfill diversion, and reuse. Once appointed, details of the waste carriers and contractors for the Scheme, along with copies of their appropriate licenses, will be included in the SWMP. The strategic approach to planning, co-ordinating, and managing the labour, materials and equipment during construction will be set out in the detailed CEMP. Excavated soils will be managed and stored in accordance with the **Outline SRMP [EN0110014/APP/7.9]**. All waste management will be undertaken in accordance with the relevant guidance and waste will be transported by licensed waste hauliers to waste management sites which hold the necessary regulatory authorisation and/or permits for those wastes consigned to them. Appropriate mitigation and control measures will be included in the SWMP will include, but not limited to: ▪ Use of pre-fabrication components, as far as practicable; ▪ Soils from the Scheme will be removed for treatment or disposal if they are found to be contaminated and cannot be treated on the Sites. Any toxic and hazardous materials will also need to be handled by an authorised carrier and a suitably qualified contractor;	The types, quantities and final destination of waste generated during the construction phase will be identified, measured and recorded through the SWMP. A register of all waste loads leaving the Order Limits will be maintained to provide a suitable audit trail for compliance purposes and to facilitate monitoring and reporting of waste types, quantities and management methods.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ The Contractor will segregate construction waste to be re-use and recycled, where reasonably practicable. Waste will be managed according to the waste hierarchy; and ▪ Waste streams to be separated on the Sites before transport to approved, licensed third-party waste facilities for recycling or disposal. Consolidating welfare units within the Temporary Construction Compounds to reduce construction waste, wastewater, and electricity use.	
Impacts of waste to the surrounding environment	To minimise impacts of waste on the surrounding environment, the following measures will be implemented: ▪ Damping down of surfaces during spells of dry weather and brushing/water spraying of heavily used hard surfaces/access points, as required; ▪ Burning of waste or unwanted materials will not be permitted; ▪ All hazardous materials including fuels, chemicals, cleaning agents, solvents and solvent containing products to be properly sealed in containers in appropriately protected and bunded storage areas; ▪ All workers will be required to use appropriate PPE; ▪ Any waste effluent will be tested and, where necessary, disposed of at a correctly licensed facility by a licensed specialist Contractor(s); and ▪ Materials requiring removal would be transported using licensed 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.	The types, quantities and final destination of waste generated during the construction phase will be identified, measured and recorded. A register of all waste loads leaving the Order Limits will be maintained to provide a suitable audit trail for compliance purposes and to facilitate monitoring and reporting of waste types, quantities and management methods.

3.16 Telecommunications, Television Reception and Utilities

Table 3.15: Telecommunications, Television Reception and Utilities

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Utilities, Telecommunications and Television Receptors	Measures in relation to safe working near buried utilities, particularly gas pipelines, will be in place at all phases of the Scheme. The following measures will be included within the detailed CEMP: ▪ In advance of construction, the Applicant will liaise with all utility providers with assets in the Order Limits regarding construction timelines, activities, proximity to assets and construction management measures; ▪ Locating the Scheme outside of utilities protected zones as part of detailed design of the Scheme, where practicable. This includes partaking in discussions with relevant utility providers as part of the detailed design of the Scheme to ensure legal, safety, and practical design considerations to ensure these have been actively integrated into the Scheme. In addition, protective provisions for the benefit of statutory undertakers and electronic communications network code operators have been included in the **draft DCO [EN0110014/APP/3.1]**; ▪ Above and below-ground infrastructure as part of the Scheme located with adequate offsets/buffers from existing telecommunications and utility infrastructure, where practicable; ▪ Use of geophysical data alongside mapping provided by telecommunication and utilities providers to ensure underground and overground utilities are adequately offset; ▪ Use of ground penetrating radar before excavation to identify any unknown utilities; ▪ Infrastructure that crosses the Order Limits is mapped and will be avoided through the detailed design; ▪ Consultation and agreement of construction/demobilisation methods will be undertaken prior to the works commencing (this will be covered by the protective provisions included in the DCO); and ▪ There will be safe working beneath any overhead lines in line with National Grid's technical guidance note 287 including, for example, ensuring adequate clearances are in place when plant and equipment are being moved beneath overhead lines, and limiting any planting beneath overhead lines to low growing species.	No monitoring required.

3.17 Glint and Glare

Table 3.16: Glint and Glare

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Glint and glare	Landscaping mitigation, including for glint and glare screening, is included in the **Outline LEMP [EN0110014/APP/7.4]**.	Refer to the **Outline LEMP**.

3.18 Electromagnetic Fields

Table 3.17: Electromagnetic Fields

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Electromagnetic fields	For overhead lines, a setback distance of at least 15m from the existing 400kV overhead cables is to be maintained between the overhead cables, and receptors pertaining to human health; based on the distance at which the electrical field strength for a 400kV overhead cable is below the threshold value of 5kV m-1. All proposed cables will be 'UKCA' and/or 'CE' marked. Electrical fields from the underground power cables will be shielded by the surrounding cable duct and the conducting soil. For 132kV and 400kV underground cables, electric fields will be contained within the cable's protective insulation and sheath.	The Environmental Manager will regularly record compliance in a logbook.

3.19 Major Accidents and Disasters

Table 3.18: Major Accidents and Disasters

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Major Accident and Disasters	All works will be undertaken in accordance with relevant Health and Safety legislation and guidance. Details of fire, police, emergency services and hospitals would be publicised and included in the inductions. The relevant risk assessments for safety during construction will be required and produced by the Contractor prior to decommissioning, which will be implemented to minimise the risk of accidents and disasters. An **Outline Battery Safety Management Plan [EN0110014/APP/7.5]** details the risks associated with fires from the BESS. An Emergency Response Plan would be followed in the event of fire. Further risks of major accidents and disasters are covered in relation to the Water Environment, Transport and Access; Ground Conditions, Human Health and Other Environmental Matters.	Details to be included within the BSMP and CEMP(s).

4. Mitigation and Monitoring (National Grid Substation and Grid Connection Infrastructure)

4.1.1 This section of the Outline CEMP sets out the mitigation measures to be included as a minimum in the detailed CEMP(s) pertaining to the National Grid Substation and Grid Connection Infrastructure; these components of the Scheme will be operated by National Grid Electricity Transmission plc (NGET). It also identifies where monitoring is proposed to assess the effectiveness of the mitigation measures. This section will be updated and developed following consent as part of the preparation of the detailed CEMP(s).

4.1 Climate Change

Table 4.1: Climate Change

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Greenhouse Gas (GHG) impact on waste	The following comprises the outline Greenhouse Gas Reduction Strategy, which will be confirmed at the detailed design stage: ▪ Increasing recyclability by segregating waste at source to be re-used and recycled, where reasonably practicable; ▪ Reuse of materials on the Sites, wherever feasible, e.g. reuse of excavated soil for landscaping; ▪ Off-Site prefabrication, where practical, including the use of prefabricated elements; ▪ Adopting the CCS to assist in reducing pollution, including GHG, by employing good industry practice measures; ▪ Minimise the use of natural resources and unnecessary materials (e.g. reusing excavated soil for fill requirements); and ▪ Retention of existing vegetation as far as practicable.	To be confirmed in detailed CEMP(s).
GHG emissions from construction traffic and equipment	Appropriate standard and good practice control measures will be included in the detailed CEMP, which would include: ▪ Encouraging the use of lower carbon modes of transport by identifying and communicating local bus connections and pedestrian and cycle access routes to staff and providing appropriate facilities for the safe storage of cycles; ▪ Liaising with construction personnel for the potential to implement staff minibuses and car sharing options; ▪ Implementing a Construction Workers Travel Plan to reduce the volume of staff and employee trips; ▪ Switching vehicles and plant off when not in use (avoid idling) and ensuring construction vehicles conform to UK emissions standards; ▪ Explore the use of alternative fuels; ▪ Use of speed limits; ▪ Providing training to all personnel on pollution control and methods to minimise emissions; and ▪ Conducting regular planned maintenance of the plant and machinery to optimise efficiency.	To be confirmed in detailed CEMP(s).

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Stronger winds, heatwaves, heavy precipitation and increased risk of fires/wildfires	Design commitments are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. Appropriate standard and good practice control measures will be included in the detailed CEMP, which would include: ▪ Contractor will monitor weather forecasts and plan works accordingly, protecting workers and resources from any extreme weather conditions; ▪ Health and safety plans and risk assessments will be required to account for potential climate change impacts on workers, such as flooding and heatwaves. This will include for the provision of flood defence equipment (e.g. sandbags) and good practice health management measures for staff working in heat such as staying hydrated and sun protection; ▪ Fire suppression system to rapidly action in case of fire; ▪ Protecting workers and resources from extreme weather conditions through appropriate PPE and working practices; and ▪ Using equipment's cooling systems where necessary/adapting working practices and equipment used, based on weather conditions.	The Contractor will monitor weather forecasts and receive Environment Agency's flood alerts and plan works accordingly, protecting workers and resources from any extreme weather conditions such as storms, flooding.

4.2 Landscape and Visual

Table 4.2: Landscape and Visual

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Loss of existing landscape features, e.g., vegetation Visibility of construction activities	The **Outline LEMP [EN0110014/APP/7.4]** sets out the measures proposed to mitigate landscape (and ecological) features as far as practicable. This includes a hedgerow removal plan and the length of individual instances of temporary hedgerow removal. The construction phase measures contained within the detailed LEMP, which is to be prepared substantially in accordance with the **Outline LEMP [EN0110014/APP/7.4]**, will be adhered to in addition to the measures in the detailed CEMP. Management measures associated with the PRoW during the construction phase are set out in the **Outline PRoWPPMP [EN0110014/APP/7.8]**. Design buffers and Avoidance Areas are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. The following measures will be adhered to during the construction phase: ▪ The use of visual screening, such as hoardings, will be implemented for more sensitive visual receptors in proximity to the Order Limits, including residential and PRoW; ▪ Ensuring a tidy and neat working environment and covering stockpiles in accordance with best practice measures; ▪ Construction works which create dust will incorporate damping measures to minimise dust generation on users of the PRoW and residential properties; ▪ Vegetation disturbance will be minimised and any bare ground resulting from construction will be re-seeded in accordance with the relevant measures set out in the **Outline LEMP [EN0110014/APP/7.4]**; and ▪ The principles for lighting relating to construction activities, as set out in **ES Volume 3, Appendix 7.11 – Lighting Strategy [EN0110014/APP/6.3.7.11]**, will be adhered to.	Refer to the **Outline LEMP [EN0110014/APP/7.4]** and detailed CEMP(s).
Additional tree removal or pruning, and/or impacts to roots	▪ A pre-construction tree survey will be undertaken prior to construction in accordance with BS 5837:2012 (or in line with most recent adopted standard and industry guidelines). This survey will inform the tree protection zones to be applied during construction; ▪ An Arboricultural Method Statement (AMS) will be adopted incorporating best practice guidance set out in British Standard 5837:2012 ‘Trees in relation to design, demolition and	Arboriculturist Supervision To be included within the AMS.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	construction'. The AMS will ensure retained trees are not adversely affected during the construction works; ▪ All tree work operations will be carried out in accordance with BS3998:2010 'Recommendations for Tree Work'; current arboricultural industry guidelines and best practice; and all relevant Health & Safety standards; ▪ Trees will be retained, where practicable, and will be subject to detailed design and the micro-siting of cables and Access Tracks. Where tree removal is unavoidable, trees of lower quality and life expectancy will be preferably removed over those of higher quality and life expectancy. Trees with a BS5837:2012 Quality Category of U shall be preferentially removed followed by Category C, B and A trees in that order of priority. Veteran/Ancient trees will not be removed; ▪ Tree removals will be marked by the Arboriculturist with final decisions made during detailed design and cable trench micro-siting. Only qualified arboricultural Contractors, in accordance with British Standard 3998:2010 (Ref 7), will perform tree work. Construction workers will not perform tree removals, unless qualified and specifically instructed by the Arboriculturist; and ▪ Hoarding and construction exclusion zones will be introduced around retained trees in accordance with the requirements of BS 5837:2012 'Trees in relation to design, demolition and construction'.	
Tree pruning	▪ Prior to any necessary tree pruning, the Arboriculturist will liaise with the Contractor on the requirements for pruning and will provide a specification for the pruning works which will then be implemented by a suitably qualified arboricultural Contractor working in accordance with British Standard 3998: 2010 'Tree Work – Recommendations' (Ref 7); and ▪ Pruning works to veteran trees will be avoided as far as reasonably practicable and requirements for pruning will aim to prioritise trees of low quality (BS5837:2012 Category U and C trees) over trees of moderate or high quality (BS5837:2012 Category A and B trees). No tree works will be undertaken by construction workers unless qualified and instructed to do so. All tree pruning works will have due consideration for ecological mitigation and protection.	Arboriculturist Supervision To be included within the AMS.
Root loss/damage or soil compaction within Root Protection Areas (RPA) and damage to canopies/stems	▪ Hoarding and construction exclusion zones will be introduced around retained trees and will consist of protective fencing. This will prevent entry of machinery, materials/spoil and excavations in the protected areas. In some instances, a wider working area may be necessary. In this instance and in consultation with the Arboriculturist, an amended location for the protective fencing will be agreed with the Arboriculturist and ground protection measures put in place. The protective fencing will remain in place throughout construction in the area and only be altered under the Arboriculturist supervision; ▪ The precise location of the protective fencing will be agreed between the Site Manger and the Arboriculturist before construction works commence; ▪ Construction vehicles will not be driven onto unsurfaced areas of ground within the RPA of any retained trees. If access is required for construction vehicles on unsurfaced areas of ground	Arboriculturist Supervision. All excavations taking place within the RPA of retained trees should be supervised by a suitably qualified arboriculturist. To be included within the AMS.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	within the RPA of retained trees, ground protection will be installed. In accordance with BS5837:2012, ground protection will need to be fit for the purpose of supporting any traffic entering the RPA without causing compaction of the soil; ▪ Ground level decreases will not take place within the RPA of retained trees. Should ground level increases be required, this will be undertaken in consultation with an Arboriculturist; ▪ Micro-siting of the design will be used to minimise root disturbance, with cables designed to avoid RPAs of retained trees as far as practicable. If work within RPAs is unavoidable, the Agriculturist will supervise and guide precautionary measures. Potential excavation works inside the RPA will proceed using hand tools, compressed air and soil vacuum excavation techniques. These roots must not be severed at any time without first consulting the Arboriculturist. Any roots left exposed for a period of time will be wrapped in dry hessian sacking. Where practicable, any services will be fed beneath any exposed structural roots. Backfill will, where practicable, contain originally excavated material, and will include the placement of an inert granular material mixed with topsoil or sharp sand (not builder's sand) around roots.	

4.3 Ecology and Biodiversity

Table 4.3: Ecology and Biodiversity

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Clearance or damage of habitat resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species **Potential for obtrusive light spill to impact on ecology** **Potential for spillages to enter watercourses and impact ecology** **Dust deposition on sensitive ecological receptors**	The **Outline LEMP [EN0110014/APP/7.4]** sets out the measures proposed to mitigate ecological (and landscape) features as far as practicable. This includes a hedgerow removal plan and the length of individual instances of temporary hedgerow removal. The construction phase measures contained within the detailed LEMP, which is to be prepared substantially in accordance with the **Outline LEMP [EN0110014/APP/7.4]**, will be adhered to in addition to the measures in the detailed CEMP. Design buffers are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. The following measures are to be employed during the construction phase, which will be included in a detailed CEMP: ▪ An ECoW will be designated at the onset of the construction phase, who will provide ecological supervision during the construction works which have the potential to impact protected and notable species, such as localised habitat clearance, ditch/watercourse engineering works, as appropriate; ▪ The principles for lighting relating to construction activities, as set out in **ES Volume 3, Appendix 7.11 – Lighting Strategy [EN0110014/APP/6.3.7.11]**, will be adhered to; ▪ Erection of tree protection fencing around woodland, trees and hedgerows in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction'; ▪ Standard management measures will be implemented to prevent pollution incidents, minimise effects on ecology from noise and vibration, and prevent and minimise dust creation and air pollution. These management measures will include refuelling, storage of chemicals and hazardous materials in line with best practice guidelines, ensuring that they are secure and away from habitats of ecological value and watercourses and measures to prevent the deposition of sediment or other material in, and the pollution by sediment, of watercourses. This will include use of silt fencing, settlement areas where required, and adherence to Environment Agency pollution prevention guidance; ▪ Disturbance from noise will be minimised by the adoption of good working practice and BPM; ▪ Damping down of potential sources of dust; ▪ No fires will be permitted within the Order Limits;	A pre-construction walkover will be undertaken in advance of mobilisation/any potential advance works to reconfirm the ecological baseline conditions and to identify any new ecological risks, such as new badger setts. Further pre-commencement surveys for protected species maybe conducted, as advised by NGET's ecologist, for example where tree modification or removal is proposed, where trees have potential to support roosting bats. Further protected species surveys, will be undertaken, where required. Such surveys will be undertaken sufficiently far in advance of construction works to account for seasonality constraints and to allow time for the implementation of any necessary mitigation, prior to construction. Reconfirmation of the status of protected species identified to inform mitigation requirements and support protected species licence applications, if required, and the requirement for any

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Erection of temporary fencing around works areas, protecting retained habitats of ecological value; ▪ Contractors will be briefed as to the possible presence of protected and notable faunal species, with particular reference to the implications of legislation and licensing inspections. Construction personnel will receive a Toolbox Talk detailing the presence of sensitive ecological features and will be informed of the location of buffer zones where vehicles should not track across and materials should not be stored within; ▪ Any trenches or deep pits that are to be left open overnight will be provided with a means of escape should a Badger or other mammal enter. Any trenches/pits will be inspected each morning to ensure no animals have become trapped overnight; ▪ In the event that one of more species that are listed as invasive non-native species is recorded within the construction areas at the time, a Method Statement 11 of the **Outline Protected Species Mitigation Strategy [EN0110014/APP/6.3.8.10]** will be followed; ▪ Habitat and hedgerow removal will be reinstated as soon as practicable through hedgerow and grassland replanting/translocation/re-seeding; and ▪ The potential loss of active nests during construction will be avoided by either undertaking clearance of potential bird nesting habitat outside of the bird nesting season (March to August inclusive) or, if necessary, preceding any clearance with an inspection by a suitably qualified ecologist. Any nests identified will be cordoned off and protected until they cease to be active. Where necessary, the use of bird scarers or other deterrence methods will be used to minimise the risk of ground nesting birds occupying open ground once construction works have commenced; and ▪ The storage of topsoil or other 'soft' building materials in the Sites will be given careful consideration. These will be subject to inspections by Contractors with consideration given to temporarily fencing to exclude Badgers.	EcoCoW supervision during the construction phase.

4.4 Water Environment

Table 4.4: Water Environment

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Minimise the risk of flooding, surface water runoff, and pollution to waterbodies	Design buffers are incorporated into the design of the Scheme to reduce impacts as far as practicable. These, together with drainage design commitments, are set out and secured in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. Where practicable, during the construction phase, a minimum buffer of 10m would be preserved from the tops of banks of main rivers and watercourses, including temporary construction compounds. No temporary construction compounds and stockpiles would be located within areas of higher surface water flood risk/major surface water flow routes based on the Environment Agency's surface water flood risk mapping (as of September 2026) (see **ES Volume 3, Appendix 9.1 - Flood Risk Assessment & Outline Surface Water Drainage Strategy [EN0110014/APP/6.3.9.1]**). An Emergency Response Plan will include details for pollution prevention and will be prepared and included alongside the detailed CEMP. An Emergency Response Plan will be included alongside the detailed CEMP(s). A detailed surface water drainage strategy will be prepared prior to construction of the Scheme, with drainage requirements associated with the construction phase included in the detailed CEMP. Temporary drainage systems will be developed to prevent runoff contaminated with fine particulates from entering surface water drains without treatment. Good practices will be incorporated into the detailed CEMP and will include but not limited to: <u>Management</u> ▪ The Contractor will ensure that construction workers are fully aware of the procedures to be followed in the event of an accidental pollution event occurring. This will be included in the induction and training, with an emphasis on procedures and guidance to reduce the risk of water pollution; and ▪ If any suspected contaminated material is discovered during the works, the Contractor will be required to investigate the areas and assess the need for containment or disposal of the material. If material is considered to be contaminated, it will be disposed of to an appropriately licensed facility.	Temporary drainage will be monitored throughout construction. Specific details will be confirmed in the detailed CEMP(s). A Water Management Plan (which will form part of a detailed CEMP(s)) will include details of pre-construction, construction, and post-construction water quality monitoring. This will be based on a combination of visual observations and reviews of the Environment Agency's automatic water quality monitoring network.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	Traffic/Vehicles ▪ Limit HGV movements to temporary construction compounds as far as practicable; ▪ Fuel delivery vehicles will only be allowed as far as the temporary construction compounds; ▪ Fuel will be stored and used in accordance with the Control of Substances Hazardous to Health Regulations 2002 and the Control of Pollution (Oil Storage) (England) Regulations 2001, the Oil Storage Regulations for Businesses guidance – GOV.UK , Pollution Prevention for Businesses guidance – GOV.UK, and CIRIA C736 'Containment Systems for the Prevention of Pollution'; ▪ Any plant, machinery or vehicles will be regularly inspected and maintained to ensure they are in good working order and clean for use; and ▪ Wheel cleaning facilities will be provided at each access point, positioned near the end of the access track before vehicles join the public highway. Mud will be controlled at entry and exits to the Sites using wheel washes and/or road sweepers. ▪ Where wheel cleaning is required, dry (waterless) rumble grid or other suitable facilities will be provided to prevent (as far as is practicable) mud and debris being deposited on to the public roads. Where wheel washing is required, it will be undertaken in designated impermeable or lined areas, with wash water contained and either recycled or removed off site by a licensed contractor. The wheel washing system will implement rumble grids to dislodge accumulated dust and mud prior to leaving the Sites where reasonably practicable. Signage will be put in place to direct all vehicles to use wheel wash facilities. Earthworks ▪ The relevant sections of BS 6031:2009 Code of Practice for Earthworks (Ref - 8) will be followed for the general control of drainage; ▪ Major construction works (e.g., large-scale earthworks) will be minimised during heavy precipitation events as far as practicable; ▪ Cut-off ditches or geotextile silt-fences, installed around excavations, exposed ground and stockpiles will be implemented, where required, to prevent uncontrolled release of sediments; ▪ Where necessary, silt mitigation methods will be implemented in the channel; ▪ Earth stockpiles will be seeded as soon as practicable, covered with geotextile mats or surrounded by a bund; and ▪ Excavated soils will be managed and stored in accordance with the **Outline Soils Resource and Management Plan [EN0110014/APP/7.9]**. Drainage, Storage and Handling ▪ Temporary drainage system will be developed to prevent runoff contaminated with fine particulates from entering surface water drains without treatment;	

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Runoff and pollution from temporary construction compounds will have separate drainage and be managed using bunding, silt traps, oil drip trays, silt lagoons and/or filter drains. Oil drip trays will be utilised and be inspected. Any polluting materials suctioned out and stored in a bunded tank will be removed for disposal; ▪ The temporary construction compounds will include a bunded and impermeable refuelling area, and operations will only be permitted where they comply with the Contractor's method statements; ▪ Discharge to watercourses will only be permitted where discharge consent or other relevant approval has been obtained (where required and necessary); ▪ All reasonably practicable measures will be taken to prevent the deposition of sediment or other material in, and the pollution by sediment of, any watercourse, arising from construction activities. These measures will include soil bunds/silt traps where ground level differences occur; ▪ Waste/debris to be prevented from entering main rivers and watercourses; ▪ The storage and handling of materials will be undertaken in temporary compounds/designated areas, away from main rivers and watercourses. Temporary compounds/designated areas will be kept secure to prevent vandalism that could lead to a pollution incident; ▪ Plant and machinery will be kept away from surface waterbodies, wherever practicable. Equipment and plant to be washed and cleaned in temporary construction compounds, where runoff can be isolated for treatment before disposal; ▪ All chemicals will be stored in a secure impermeable and bunded area and accordance with the Control of Substances Hazardous to Health (COSHH) guidelines. Spillage kits will be held, and personnel will be trained in their use. The Environment Agency will be informed, as soon as reasonably practicable, in the unlikely event of a suspected pollution incident; ▪ As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses; ▪ 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; and ▪ If the volume of dewatering is likely to exceed the limit outlined in the Environment Agency's Temporary dewatering from excavations to surface water: RPS 261 then permits for dewatering will be applied for by the contractor. <u>Concrete/Foundations</u> ▪ Foundations and services will be designed and constructed to prevent the creation of pathways for the migration of contaminants and will be constructed of materials that are suitable for the ground conditions and designed use;	

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ A Foundation Works Risk Assessment will be completed prior to the start of any work associated with the foundations of the Project Substations, BESS and National Grid Substation, supported by the Ground Investigation data. This will be undertaken in line with the Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention (CL:AIRE, 2025) (Ref - 9); and ▪ Should concrete feet be required for isolated areas in the Solar PV Arrays, these will be pre-cast concrete. <u>Foul Drainage</u> ▪ Foul water from welfare facilities will be contained within sealed systems and tankered away.	

4.5 Cultural Heritage

Table 4.5: Cultural Heritage

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Setting of heritage assets	The management of historic hedgerows will be undertaken in accordance with the Hedgerow Removal Plan as set out in the **Outline LEMP [EN0110014/APP/7.4]**. Where removal is required, no more than 10m will be removed in accordance with the **Outline LEMP [EN0110014/APP/7.4]** The locations of the temporary construction compounds will be sited where practicable to avoid areas of archaeological sensitivity and to be unobtrusive to the settings of heritage assets as far as practicable.	Refer to the **Outline LEMP [EN0110014/APP/7.4]** and to be detailed CEMP(s).
Minimise / prevent harm to buried archaeological features	**ES Volume 3, Appendix 10.6 - Archaeological Mitigation Strategy [EN0110014/APP/6.3.10.6]** provides details of the overarching methodology for undertaking a programme of archaeological mitigation. Where possible, there will be a preference to conserve buried archaeological deposits through mitigation by design which will minimise impact to an acceptable level agreed with the Local Planning Authority archaeological advisor (i.e. where impact is of such a low level that it is effectively preservation in situ). Where this is not achievable, mitigation by record will be undertaken in the form of archaeological excavation and/or archaeological monitoring. In some instances, the archaeological excavation may be designed to compensate for impacts beyond the area of excavation. **ES Volume 3, Appendix 10.6 - Archaeological Mitigation Strategy [EN0110014/APP/6.3.10.6]** also sets out the scope of mitigation fieldwork for geophysical survey, informative trenching, geoarchaeological assessment archaeological excavation and archaeological monitoring, together with a recording strategy.	Provision for archaeological monitoring is detailed in **ES Volume 3, Appendix 10.6 - Archaeological Mitigation Strategy [EN0110014/APP/6.3.10.6]**. All archaeological works will be undertaken by a suitably qualified and experienced archaeologist. The Archaeological Contractor for each stage of work will be a CIfA Registered Archaeological Organisation. Norfolk County Council Historic Environment Service will monitor implementation of the programme of works on behalf of the Local Planning Authority and evaluate the work being undertaken against the methodology in **ES Volume 3, Appendix 10.6 - Archaeological Mitigation Strategy [EN0110014/APP/6.3.10.6]**.

4.6 Transport and Access

Table 4.6: Transport and Access

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Increased traffic that will impact both motorised users and non-motorised users	During construction, the Contractor will ensure that the impacts from construction traffic are minimised on the Local Road Network, where reasonably practicable, by implementing the traffic management measures set out in the **Outline CTMP [EN0110014/APP/7.6]**. The **Outline CTMP [EN0110014/APP/7.6]** also provides construction access arrangements, internal haul routes and construction vehicle routing. It also provides a Framework Construction Worker Travel Plan. Measures are set out within the **Outline CTMP [EN0110014/APP/7.6]** for the control of vehicles associated with the construction phase. Good practices will be incorporated into the detailed CTMP and will include but not limited to: ▪ Adherence to designated routes; ▪ Vehicle Booking Management System will be implemented for scheduling arrivals and departures; ▪ The Contractor will engage with suppliers and hauliers prior to any scheduling of deliveries to ensure that the scheduling system and process is clearly understood and that drivers are aware of the process for communicating with the Site Manager if there are any unforeseen issues with arrivals or departures; ▪ Temporary road signage will be installed along the traffic routes to inform all road users of the construction works and to direct traffic to and from the various accesses; ▪ Temporary traffic management may be needed to protect the integrity of the public highway and the safety of road users; ▪ Wheel cleaning facilities will be provided at each access point, positioned near the end of the access track before vehicles join the public highway; ▪ Signage will be installed along the PRoW to inform users about construction activity. The signs will provide information on construction times and contact details for a Public Liaison Officer; ▪ Traffic Marshals or Banksmen will be positioned where relevant along a PRoW impacted by traffic to hold vehicles if a PRoW user is present and advise PRoW users of the potential for vehicles; ▪ Speeds to be limited to 5-10mph near PRoW; ▪ Any damage to the surface of the PRoW directly attributable to the Scheme will be repaired as soon as practicable; and ▪ Contact details for the Site Manager will be provided to the local highway authority prior to the commencement of works. These details will also be displayed on an information board at all	Further details to be confirmed in the detailed CEMP, detailed CTMP and detailed PROWPPMP. Any unforeseen issues that arise in relation to construction vehicle movement will be logged by the Site Manager. If necessary, the issues will be discussed with the local highway authority so that they can be resolved as appropriate.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	access points. Members of the local community who have questions or concerns during the construction phase will be able to contact the Site Manager. All AIL movements required as part of the construction phase will be managed by a specialist haulage contractor to ensure safety and compliance with the relevant standards, management protocols and notification processes at the time. Traffic management arrangements will be agreed in advance with National Highways, local highway authority and other relevant local highway authorities, structures' owners and the police, where necessary, before any AIL movements take place. PRoW will be managed during the construction phase by the management measures set out in the **Outline PRoWPPMP [EN0110014/APP/7.8].** There are likely to be instances where Access Tracks cross PRoW. In these instances, public access to PRoW will be retained so far as is practicable to do so. However, the PRoW will be managed to ensure the safety of all users. A detailed CTMP and detailed PRoWPPMP will be produced prior to the commencement of the construction phase.	

4.7 Noise and Vibration

Table 4.7: Noise and Vibration

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Noise and vibration due to construction activities causing annoyance at Noise Sensitive Receptors (NSR) **Construction traffic, plant and machinery noise at nearby NSR**	Contractors will be required to ensure that works are carried out in accordance with BPM as stipulated in the Control of Pollution Act and as specified in BS 5228-1. Noise control measures will be consistent with the recommendations of the current version of BS 5228 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' – 'Part 1: Noise' and 'Part 2: Vibration' (BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014) (Ref - 4). Good practices will be incorporated into the detailed CEMP/Construction Method Statements and will include but not limited to: ▪ Using 'silenced' plant and equipment, as appropriate; ▪ Switching off engines where vehicles are standing for a significant period of time; ▪ Fitting acoustic enclosures to suppress noisy equipment, as appropriate; ▪ Operating plant at low speeds and incorporating automatic low speed idling; ▪ Selecting less noisy equipment where practicable, such as: electrically-driven rather than internal combustion powered plant hydraulic powered rather than pneumatic equipment; and wheeled rather than tracked vehicles; ▪ Properly maintaining all plant (greased, blown silencers replaced, saws kept sharpened, teeth set and blades flat, worn bearings replaced etc.); ▪ Where necessary and appropriate, use temporary screening or enclosures for static noisy plant to reduce impacts; ▪ Certifying plant to meet any relevant EC Directive standards; and ▪ Undertaking awareness training of all contractors in regard to BS 5228 (Parts 1 and 2).	A construction noise monitoring scheme will be developed and agreed with the relevant planning authority following appointment of a Contractor and prior to commencement of construction works. The detailed CEMP(s) will also set out a scheme for the provision of monthly reporting information to and from local residents to advise of potential noisy works that are due to take place and for monitoring of noise complaints and reporting to NGET or their appointed Contractor for immediate investigation and action. Further details are to be confirmed in the detailed CEMP(s). Section 61 consent will be sought from the relevant local authority where works are anticipated to generate significant noise effects outside of standard working hours. The consent, where granted, will define noise limits, monitoring requirements and mitigation measures to be implemented during construction.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Night-time construction noise	The core construction working hours (excluding start-up and shut down works) are defined as: ▪ Monday to Friday from 07:00 to 18:00 (daylight hours permitting); ▪ Saturday from 08:00 to 13:30 (daylight hours permitting); and ▪ No Sunday or Bank Holiday working unless crucial to construction or in an emergency. Some activities may be required outside of these times such as the delivery of AIL, concrete pours for foundations, night working for cable construction works in public highways and/or trenchless crossing activities. If required, the NGET will seek prior consent for noisy works under Section 61 of Control of Pollution Act. A Section 61 submission will describe the construction methods, predicted noise levels, proposed working hours, monitoring strategy, communication protocols with the relevant planning authority and the mitigation techniques to be employed. The purpose of the submission is to demonstrate that noise and vibration have been controlled as far as reasonably practicable.	A construction noise monitoring scheme will be developed and agreed with the relevant planning authority following appointment of a Contractor and prior to commencement of construction works. The detailed CEMP(s) will also set out a scheme for the provision of monthly reporting information to and from local residents to advise of potential noisy works that are due to take place and for monitoring of noise complaints and reporting to NGET or their appointed Contractor for immediate investigation and action. Further details are to be confirmed in the detailed CEMP(s).

4.8 Air Quality

Table 4.8: Air Quality

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Fugitive dust emissions during the construction works	Appropriate mitigation and control measures will be included in the detailed CEMP, which will include: <u>Communications:</u> ▪ Develop and implement a Stakeholder Communications Plan that includes community engagement before construction work commences; ▪ Display the name and contact details of person(s) accountable for air quality and dust issues on the Sites. This may be the Environmental Manager or the Site Manager; and ▪ Display the Contractor's head or regional office contact information. <u>Management:</u> ▪ Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the relevant planning authority; ▪ Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken; ▪ Make the complaints log available to the local authority when asked; ▪ Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the logbook; and ▪ Hold regular liaison meetings with other high-risk sites within 250m of the Order Limits to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes. <u>Preparing and Maintaining the Site:</u> ▪ Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is practicable; ▪ Erect solid screens or barriers around dusty activities that are at least as a high as any stockpiles;	The overall responsibility will be with NGET. Specific responsibilities will be confirmed in the detailed CEMP. The following monitoring will be undertaken: ▪ Undertake daily inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authorities when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100m of the Order Limits, with cleaning to be provided if necessary. ▪ Carry out regular inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authorities when asked. ▪ Increase the frequency of inspections by the person

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Fully enclose specific operations where there is a high potential for dust production and the site is active for an extensive period; ▪ Avoid runoff of water or mud; ▪ Keep fencing, barriers and scaffolding clean using wet methods; ▪ Remove materials that have a potential to produce dust as soon as practicable, unless being re-used on the Sites. If they are being reused on the Sites, cover as described below; and ▪ Cover, seed or fence stockpiles to prevent wind whipping. <u>Operating Vehicle/Machinery and Sustainable Travel:</u> ▪ Ensure all vehicles/machinery are switched off when stationary/not in use - no idling vehicles; ▪ Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment, where practicable; and ▪ Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas (if long haul routes are required, these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of relevant planning authority, where appropriate). <u>Operations:</u> ▪ Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems; ▪ Ensure an adequate water supply for effective dust/particulate matter suppression/mitigation, using non-potable water where practicable and appropriate; ▪ Use enclosed chutes and conveyors and covered skips; ▪ Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate; and ▪ Ensure equipment is readily available to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. <u>Waste Management:</u> ▪ No bonfires or burning of waste materials.	accountable for air quality and dust issues when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. ▪ Agree real-time PM_{10} (including $PM_{2.5}$) continuous monitoring locations with the relevant planning authority. Where practicable, commence baseline monitoring at least three months before construction works commence.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	Earthworks: ▪ Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable; ▪ Use Hessian, mulches or tackifiers where it is not practicable to re-vegetate or cover with topsoil, as soon as practicable; and ▪ Only remove the cover in small areas during work and not all at once. Construction: ▪ Avoid scabbling (roughening of concrete surfaces) where practicable; ▪ Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place; ▪ Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery; and ▪ For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust. Trackout: ▪ Use water-assisted dust sweeper(s) on the access and local roads to remove as necessary any material tracked out; ▪ Avoid dry sweeping of large areas; ▪ Ensure vehicles entering and leaving are covered to prevent escape of materials during transport; ▪ Inspect haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable; ▪ Record all inspections of haul routes and any subsequent action in a logbook; ▪ Install hard surfaced haul routes, where practicable, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned; ▪ Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the Sites where reasonably practicable); ▪ Access gates to be located at least 10m from receptors where practicable; and	

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the exit, wherever size and layout permits.	
Vehicle and plant emissions during the construction works	Vehicles will be correctly maintained and operated in accordance with manufacturer's recommendations and in a responsible manner. All Non-Road Mobile Machinery will be compliant with the requirements of EU Directive 2016/1628. All off-road vehicles comply with the requirements of the Non-Road Mobile Machinery (NRMM) standards, where applicable. Use stage 4 NRMM as a minimum and stage 5 where practicable. All plant and vehicles will be required to switch off their engines when not in use and when it is safe to do so. In addition, plant and vehicles will conform to relevant applicable standards available at time of construction. At present time the standards for the vehicle types for use in demolition is as follows: ▪ Euro 4 (Oxides of Nitrogen (NOx)) for petrol cars, vans and minibuses; ▪ Euro 6 (NOx and PM) for diesel cars, vans and minibuses; and ▪ Euro 6 (NOx and PM) for lorries, buses, coaches and HGV (excluding AIL).	The overall responsibility will be with NGET. Specific responsibilities will be confirmed in the detailed CEMP(s).

4.9 Socio-Economics

Table 4.9: Socio-Economics

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Disruption to residents, businesses, tourism and recreation	Design buffers are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. As set out in the **Outline PRoWPPMP [EN0110014/APP/7.8]**, PRoW will be managed during the construction works. There are likely to be instances where Access Tracks cross PRoW. In these instances, public access to PRoW will be retained so far as is practicable to do so. However, the PRoW will be managed to ensure the safety of all users. This will include, but not limited to: ▪ Signage will be installed along the PRoW to inform users about construction activity. The signs will provide information on construction times and contact details for a Public Liaison Officer; ▪ Traffic Marshals or Banksmen will be positioned where relevant along a PRoW impacted by traffic to hold vehicles if a PRoW user is present and advise PRoW users of the potential for vehicles; ▪ Speeds to be limited to 5-10mph near PRoW; and ▪ Any damage to the surface of the PRoW directly attributable to the Scheme will be repaired as soon as practicable.	To be set out in the detailed CEMP.
Impacts to tourism and recreation as a result of an influx of construction workers	The Contractor will provide support for workers to find suitable private rental accommodation, hotels or other serviced accommodation.	To be set out in the detailed CEMP.
Impacts to economic activity and employment	The Applicant will implement employment and skills measures designed to maximise local benefits. These will include the creation of apprenticeship and trainee opportunities, targeted engagement with local education providers and STEM organisations, and collaboration with council initiatives. NGET will seek to source services from local contractors and sub-contractors where feasible and advertise jobs through local channels. Measures are incorporated into the **Outline Employment, Skills and Supply Chain Strategy [EN0110014/APP/7.8]**.	To be confirmed in the detailed Employment, Skills and Supply Chain Strategy.

4.10 Soils and Agriculture

Table 4.10: Soils and Agriculture

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Impact on agricultural land and soils	The **Outline Soil Resource and Management Plan [EN0110014/APP/7.9]** (Outline SRMP) sets out good practice to soil management, handling, stockpiling and reinstatement to minimise potential effects on soils and agricultural land quality, as far as practicable. The **Outline SRMP [EN0110014/APP/7.9]** sets out the measures that will be developed in more detail in the detailed Soil Resource Management Plan (SMP).	A suitably qualified soil practitioner will undertake such tasks as the assessments of soil suitability for handling, or who will otherwise be able to instruct the Contractor on how to undertake the necessary tests. An Agricultural Liaison Officer will act as a liaison between the landowners and the Contractor.

4.11 Human Health

Table 4.11: Human Health

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Impacts on human health	Design buffers are incorporated into the design of the Scheme to reduce impacts as far as practicable. These are set out in the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**. Embedded design also includes permissive paths and community accessible space. Landscaping mitigation, including for visual screening, is included in the **Outline LEMP [EN0110014/APP/7.4]**.	To be confirmed in the detailed CEMP(s).
Disruption to users of PRoW	As set out in the **Outline PRoWPPMP [EN0110014/APP/7.8]**, PRoW will be managed during the construction works. There are likely to be instances where Access Tracks cross PRoW. In these instances, public access to PRoW will be retained so far as is practicable to do so. However, the PRoW will be managed to ensure the safety of all users. This will include, but not limited to: ▪ Signage will be installed along the PRoW to inform users about construction activity. The signs will provide information on construction times and contact details for a Public Liaison Officer; ▪ Traffic Marshals or Banksmen will be positioned where relevant along a PRoW impacted by traffic to hold vehicles if a PRoW user is present and advise PRoW users of the potential for vehicles; ▪ Speeds to be limited to 5-10mph near PRoW; and ▪ Any damage to the surface of the PRoW directly attributable to the Scheme will be repaired as soon as practicable.	To be set out in the detailed CEMP.
Disruption to the local community	A Community Liaison Manager will be appointed, to whom any comments, concerns or complaints about the construction works of the Scheme can be raised, either directly by members of the public, or via elected representatives on parish or town councils, councillors, and Members of Parliament. This role will be used to continue open channels of communication between the community and the operators of the Scheme.	To be confirmed in the detailed CEMP(s).
Disruption to the provision of care services, social and healthcare facilities	NGET or their appointed Contractor will be required to keep in direct contact with the operators of care homes and service providers ahead of and during construction, to ensure that operators at these receptors are suitably resilient to reduce the likelihood of construction impacts affecting the functional operation and quality of environment for residents and users.	To be confirmed in the detailed CEMP(s).

4.12 Ground Conditions

Table 4.12: Ground Conditions

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Drilling fluid seepage to surrounding environment	In the event of surface seepage, contamination will be contained and cleaned up using sandbags and a vacuum tanker. Any surplus drilling fluid will be recovered from entry/exit pits post installation by a specialist waste management company. This fluid will be collected and disposed of at a licensed facility. An Emergency Response Plan will include details for pollution prevention and will be prepared and included alongside the detailed CEMP(s). Any pollution incident involving break out of drilling fluid into a watercourse must be immediately reported to the Environment Agency Incident line 0800 80 70 60 to enable the situation to be assessed as soon as possible.	No monitoring required.
Displacement and exposure of contaminated soils **Interaction with unstable ground** **The discovery of ground contamination during groundworks** **Potential for risks to human health**	▪ Excavated soils will be managed and stored in accordance with the **Outline SRMP [EN0110014/APP/7.9]**. ▪ A Ground Investigation will be undertaken prior to commencing construction works. Results will be reviewed by the Contractor and will be used to inform the design of the Scheme. The ground investigation will cover geotechnical and geoenvironmental matters and will be undertaken in accordance with the relevant standards and guidance, including BS 10175:2026. It is envisaged that the ground investigation will include the following: - Boreholes to at least the full depth of the proposed PV array foundations, and mechanically excavated where necessary to throughout the Order Limits to investigate the ground conditions. - Deep boreholes at the locations of the Project Substations, BESS and National Grid Substation, to inform the design of the piled foundations for these structures. The boreholes will extend to at least the full depth of the proposed piled foundations. - Groundwater monitoring installations will be installed within boreholes where shallow groundwater is encountered. - In-situ geotechnical analyses. - Recovery of soil, groundwater and surface water samples. The groundwater and surface water sampling methodologies will include in-situ measurements of water quality (typically pH, temperature, electrical conductivity, turbidity, redox potential, dissolved oxygen, subject to confirmation in the ground investigation specification post-consent). It is envisaged that for groundwater sampling this will be achieved by using a multi-	The Environmental Manager will regularly record compliance in a logbook. To be confirmed in the detailed CEMP(s). A Ground and Surface Water Monitoring Plan.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	parameter sonde and for surface water sampling this will be achieved using a suitable handheld meter (or meters, as appropriate). - An extended period of surface water sampling sufficient to provide a baseline surface water quality dataset. - Geotechnical and geoenvironmental laboratory analysis, using UKAS accredited laboratories and MCERTS approved methods where available. ▪ Inclusion of the Unexploded Ordnance (UXO) measures recommended in the UXO Desk Study and Constraints Assessment of **ES Volume 3, Appendix 16.1 - Phase 1 Ground Conditions Assessment [EN0110014/APP/6.3.16.1**] into the detailed CEMP(s); ▪ A Foundation Works Risk Assessment will be undertaken post-consent for structures requiring deep foundations and/or piling such as the Project Substations, BESS and National Grid Substation; ▪ The Construction (Design and Management) Regulations 2015 (Ref - 14) (CDM) regulate the health, safety and welfare of construction projects and will apply to the Scheme. A Principal Designer and a Principal Contractor will be appointed to plan, manage, monitor, and coordinate health and safety during the pre-construction and construction phase. The Principal Contractor will have responsibility for ensuring legislative compliance and obtaining all permits/licenses as required. The CDM Regulations require a pre-construction information pack (PCIP) to be provided by the NGET (the 'Client' under CDM) or by the Principal Designer/appointed Contractor if the Client delegates this duty, which will be complied with. The PCIP will contain all information that is held or is readily available and will be used by the Principal Contractor to prepare construction phase risk assessments and method statements. The risk assessments will be informed by the findings of the Ground Investigation; ▪ Occupational health and safety measures e.g. PPE and statutory health and safety compliance (e.g. compliance with the Confined Spaces Regulations, 1997 (Ref - 15), in relation to ground gas from working in confined spaces or trenches) will minimise the risks associated with potential contamination; ▪ Appropriate training of construction workers in the handling and use of potentially hazardous substances and the associated risks; ▪ The control of earthworks or materials movement (including any re-use of materials) will only be undertaken in accordance with appropriate environmental permits exemptions, or the CL:AIRE The definition of Waste: The development industry code of practice (Ref - 16); ▪ Any temporary dewatering activities during construction will be undertaken in accordance with Environment Agency guidance and will include appropriate assessment undertaken as required by the guidance (Ref - 17). If required (due to extracting more than 20 metres cubed of groundwater per day), an Abstraction Licence and Environmental Permit will be obtained for the discharge. Such works will be limited to the depth and time required to facilitate construction activities;	

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ An awareness briefing regarding ground conditions and appropriate methods of working to limit disturbance of potentially contaminated soil or water will be provided; ▪ Measures to minimise exposure to contaminated soils e.g. by controlling dust generation and the adoption of good hygiene standards; ▪ Following completion of a Ground Investigation, the measures identified to minimise and control runoff and/or leaching to controlled waters will be implemented accordingly; ▪ Prevention measures including maintenance of construction vehicles, bunded storage, designated wheel washing areas, settling basins, screening stockpiles of materials, and dampening exposed soils as appropriate, will be implemented; ▪ A protocol for dealing within any unexpected contamination will be developed by the Principal Contractor and will include: - Details of a watching brief and toolbox talks; - Details regarding how any affected area will be delineated, protected, investigated and assessed; - The qualifications and competencies of the person appointed to oversee the works; - The preparation of a method statement for how the contamination will be dealt with or remediated (as appropriate); - An escalation policy describing when and how any notifications and approvals will be agreed with the relevant planning authority; and - Details of verification procedures for any mitigation or remediation works. ▪ Any confined space entry, i.e. entry to open trenches or excavations, will be preceded by checks using appropriate instrumentation to detect the presence of methane, carbon dioxide or hydrogen sulphide, or low oxygen conditions. The design of the Scheme will be informed by the Ground Investigation, meaning that appropriate contamination-resistant materials will be utilised, should contamination be found to be present.	

4.13 Minerals

Table 4.13: Minerals

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Impacts on mineral resources	▪ No mitigation measures have been identified during the construction phase.	N/A

4.14 Materials and Waste

Table 4.14: Materials and Waste

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately **Impacts on waste recycling and handling facility capacity**	The Contractor will consider the objectives of sustainable resource and waste management and seek to use material resources efficiently, reduce waste at source, reduce waste that requires final disposal to landfill and apply the principles of the waste hierarchy. This will include, where reasonably practicable, segregation of construction materials for appropriate re-use, recycling and recovery with landfill as a last resort. A SWMP will be developed alongside the detailed CEMP(s) to ensure construction waste is managed. A SWMP is to be prepared before construction begins. The SWMP will detail the efficient management, storage, and legal disposal of materials during the Construction Phase. It will also outline the aims, objectives, and ongoing management responsibilities, including practices for management and storage, and set targets for waste reduction, landfill diversion, and reuse. Once appointed, details of the waste carriers and contractors for the Scheme, along with copies of their appropriate licenses, will be included in the SWMP. The strategic approach to planning, co-ordinating, and managing the labour, materials and equipment during construction will be set out in the detailed CEMP. Excavated soils will be managed and stored in accordance with the **Outline SRMP [EN0110014/APP/7.9]**. All waste management will be undertaken in accordance with the relevant guidance and waste will be transported by licensed waste hauliers to waste management sites which hold the necessary regulatory authorisation and/or permits for those wastes consigned to them. Appropriate mitigation and control measures will be included in the SWMP will include, but not limited to: ▪ Use of pre-fabrication components, as far as practicable; ▪ Soils from the Scheme will be removed for treatment or disposal if they are found to be contaminated and cannot be treated on the Sites. Any toxic and hazardous materials will also need to be handled by an authorised carrier and a suitably qualified contractor;	The types, quantities and final destination of waste generated during the construction phase will be identified, measured and recorded through the SWMP. A register of all waste loads leaving the Order Limits will be maintained to provide a suitable audit trail for compliance purposes and to facilitate monitoring and reporting of waste types, quantities and management methods.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
	▪ The Contractor will segregate construction waste to be re-use and recycled, where reasonably practicable. Waste will be managed according to the waste hierarchy; and ▪ Waste streams to be separated on the Sites before transport to approved, licensed third-party waste facilities for recycling or disposal. Consolidating welfare units within the Temporary Construction Compounds to reduce construction waste, wastewater, and electricity use.	
Impacts of waste to the surrounding environment	To minimise impacts of waste on the surrounding environment, the following measures will be implemented: ▪ Damping down of surfaces during spells of dry weather and brushing/water spraying of heavily used hard surfaces/access points, as required; ▪ Burning of waste or unwanted materials will not be permitted; ▪ All hazardous materials including fuels, chemicals, cleaning agents, solvents and solvent containing products to be properly sealed in containers in appropriately protected and bunded storage areas; ▪ All workers will be required to use appropriate PPE; ▪ Any waste effluent will be tested and, where necessary, disposed of at a correctly licensed facility by a licensed specialist Contractor(s); and ▪ Materials requiring removal would be transported using licensed 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.	The types, quantities and final destination of waste generated during the construction phase will be identified, measured and recorded. A register of all waste loads leaving the Order Limits will be maintained to provide a suitable audit trail for compliance purposes and to facilitate monitoring and reporting of waste types, quantities and management methods.

4.15 Telecommunications, Television Reception and Utilities

Table 4.15: Telecommunications, Television Reception and Utilities

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Utilities, Telecommunications and Television Receptors	Measures in relation to safe working near buried utilities, particularly gas pipelines, will be in place at all phases of the Scheme. The following measures will be included within the detailed CEMP: ▪ In advance of construction, NGET will liaise with all utility providers with assets in the Order Limits regarding construction timelines, activities, proximity to assets and construction management measures; ▪ Locating the Scheme outside of utilities protected zones as part of detailed design of the Scheme, where practicable. This includes partaking in discussions with relevant utility providers as part of the detailed design of the Scheme to ensure legal, safety, and practical design considerations to ensure these have been actively integrated into the Scheme. In addition, protective provisions for the benefit of statutory undertakers and electronic communications network code operators have been included in the **draft DCO [EN0110014/APP/3.1]**; ▪ Above and below-ground infrastructure as part of the Scheme located with adequate offsets/buffers from existing telecommunications and utility infrastructure, where practicable; ▪ Use of geophysical data alongside mapping provided by telecommunication and utilities providers to ensure underground and overground utilities are adequately offset; ▪ Use of ground penetrating radar before excavation to identify any unknown utilities; ▪ Infrastructure that crosses the Order Limits is mapped and will be avoided through the detailed design; ▪ Consultation and agreement of construction/demobilisation methods will be undertaken prior to the works commencing (this will be covered by the protective provisions included in the DCO); and ▪ There will be safe working beneath any overhead lines in line with National Grid's technical guidance note 287 including, for example, ensuring adequate clearances are in place when plant and equipment are being moved beneath overhead lines, and limiting any planting beneath overhead lines to low growing species.	No monitoring required.

4.16 Glint and Glare

Table 4.16: Glint and Glare

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Glint and glare	No mitigation measures have been identified during the construction phase.	N/A

4.17 Electromagnetic Fields

Table 4.17: Electromagnetic Fields

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Electromagnetic fields	For overhead lines, a setback distance of at least 15m from the existing 400kV overhead cables is to be maintained between the overhead cables, and receptors pertaining to human health; based on the distance at which the electrical field strength for a 400kV overhead cable is below the threshold value of 5kV m-1. All proposed cables will be 'UKCA' and/or 'CE' marked. Electrical fields from the underground power cables will be shielded by the surrounding cable duct and the conducting soil. For 132kV and 400kV underground cables, electric fields will be contained within the cable's protective insulation and sheath.	The Environmental Manager will regularly record compliance in a logbook.

4.18 Major Accidents and Disasters

Table 4.18: Major Accidents and Disasters

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements
Major Accident and Disasters	All works will be undertaken in accordance with relevant Health and Safety legislation and guidance. Details of fire, police, emergency services and hospitals would be publicised and included in the inductions. The relevant risk assessments for safety during construction will be required and produced by the Contractor prior to construction, which will be implemented to minimise the risk of accidents and disasters.	Details to be included within the BSMP and CEMP(s).

5. Complementary Plans and Procedures

5.1.1 A suite of complementary environmental plans and procedures have been included within the Application and set out proposed mitigation for the construction phase, and in some cases cover the operational and decommissioning phases as well.

6. Implementation and Operation

6.1.1 The detailed CEMP will set out all roles, responsibilities and actions required in respect of implementation of the measures described in this Outline CEMP, including:

- An organogram showing team roles, names and responsibilities;
- Training requirements for relevant personnel on environmental topics;
- Information on briefings and toolbox talks that will be used to equip relevant staff with the necessary level of knowledge to follow environmental control procedures;
- Measures to advise employees of changing circumstances as work progresses;
- Communication methods;
- Document control;
- Monitoring, inspections and audits of site operations; and
- Environmental emergency procedures.

6.1.2 The Construction Project Manager and Environmental Manager have responsibility for ensuring compliance with the detailed CEMP(s).

7. References

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Ref - 2 UK Government (2017) *The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)*. < https://www.legislation.gov.uk/uksi/2017/572 > accessed December 2025.

Ref - 3 UK Government (1974) *The Control of Pollution Act 1974*. < https://www.legislation.gov.uk/ukpga/1974/40 > accessed December 2025.

Ref - 4 BSI (2014) *BS 5228-1:2009+A1:2014. Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1: Noise & Part 2: Vibration 2009*.

Ref - 5 Considerate Constructors Scheme (2022) The code of considerate practice. < https://www.ccscheme.org.uk/resources/the-code-of-considerate-practice/ > accessed December 2025.

Ref - 6 BSI (2012) *BS5837:2012-1:1980+A1:1991+A2:2005+A3:2012. Trees in Relation to Design, Demolition and Construction 2012*.

Ref - 7 BSI (2010) *BS3998:2010-1:1966+A1:1989+A2:2010. Tree Works Recommendations 2010*.

Ref - 8 British Standards (2009) *BS6031:2009 - Code of Practice for Earthworks.*

Ref - 9 CL:AIRE (2025) *Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention. CL:AIRE, Reading.* [redacted] > accessed December 2025.

Ref - 10 UK Government (2002) *Control of Substances Hazardous to Health Regulations 2002* < https://www.legislation.gov.uk/uksi/2002/2677/contents > accessed December 2025.

Ref - 11 UK Government (2001) *Control of Pollution (Oil Storage) (England) Regulations 2001* < https://www.legislation.gov.uk/uksi/2001/2954/contents > accessed December 2025.

Ref - 12 UK Government (1991) *The Water Resources Act 1991*. < https://www.legislation.gov.uk/ukpga/1991/57/contents > accessed December 2025.

Ref - 13 UK Government (2016) *Environmental Permitting Regulations (England and Wales) 2016*.

Ref - 14 UK Government (2015) *The Construction (Design and Management) Regulations. Available at: The Construction (Design and Management) Regulations 2015*.

Ref - 15 UK Government (1997) *The Confined Spaces Regulations. Available at: The Confined Spaces Regulations 1997*.

Ref - 16 CL:AIRE (2011) *The Development Industry Code of Practice*.

Ref - 17 Environment Agency (2018) Temporary Dewatering from Excavations. < https://www.gov.uk/government/publications/temporary-dewatering-from-excavations-to-surface-water >

Ref - 18 BSI (2020) *BS5930:2020-1:2015+A1:2020 Code of Practice for Ground Investigations 2015 (amended 2020)*.

Ref - 19 BSI (2014) *BSEN16228-3:2014. Code for Practise for Drilling and Foundation Equipment. Safety – Part 3: Horizontal Directional Drilling Equipment (HDD)*.

Ref - 20 CL:AIRE (2011) *The Definition of Waste: Development Industry Code of Practice*.

Ref - 21 National Grid (2016) *Technical Guidance Note 287: Third-party guidance for working near National Grid Electricity Transmission equipment*.

Ref - 22 National Grid (2007) *Specifications for Safe Working in the Vicinity of National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties*.

Ref - 23 Northern Gas Networks (2017) *Working safely near high pressure gas pipelines and associated installations: Third party requirements*.

Ref - 24 Health and Safety Executive (2014) *Avoiding Dangerous underground Services HSG47.*

Ref - 25 International Commission on the Non-Ionizing Radiation Protection (ICNIRP) (1998) ICNIRP Guidelines: for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHZ) guidelines. < https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf > accessed December 2025.

Ref - 26 UK Government (1981) *Wildlife and Countryside Act. Available at: Wildlife and Countryside Act 1981.*