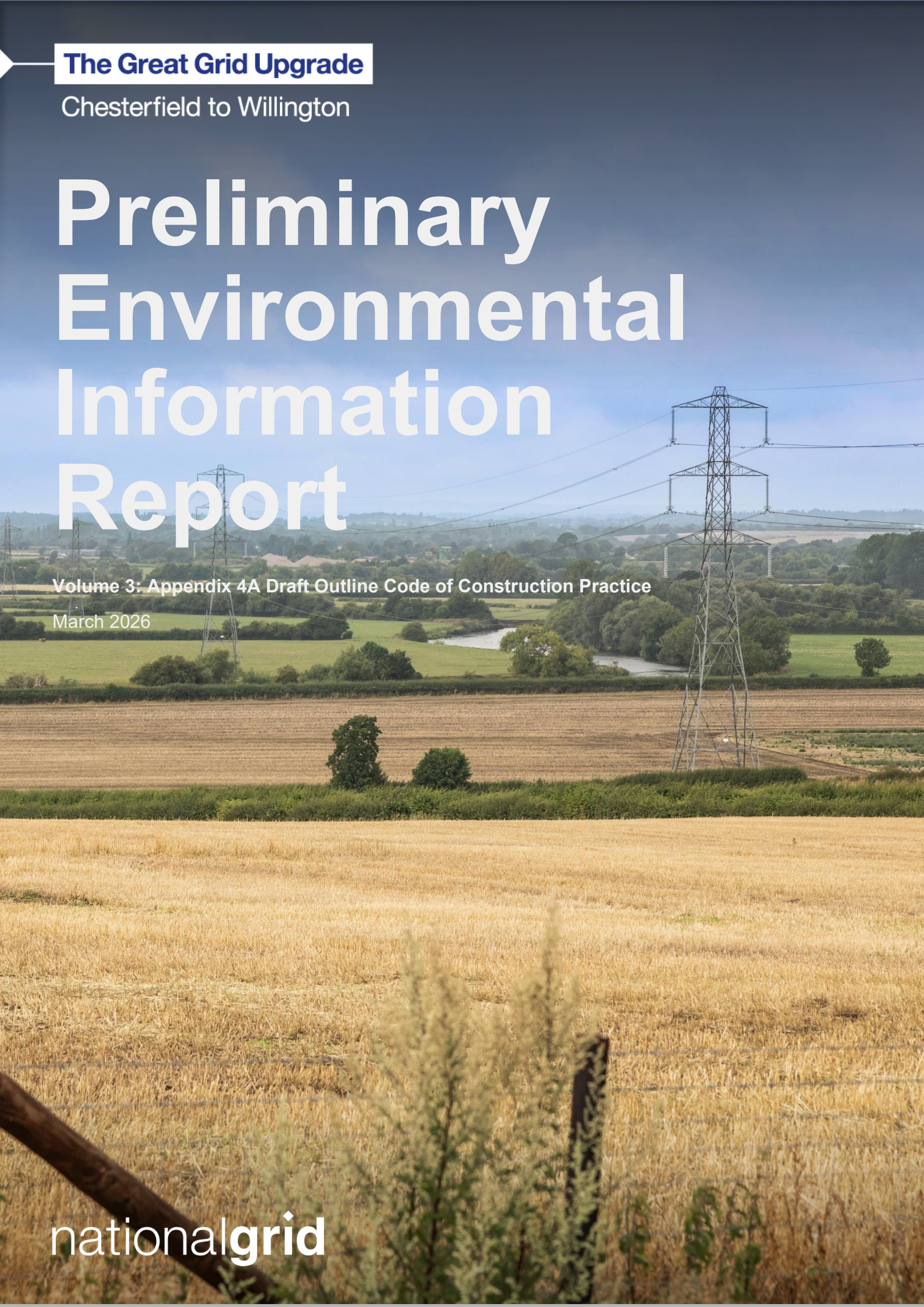
The Great Grid Upgrade

Chesterfield to Willington

Preliminary Environmental Information Report

Volume 3: Appendix 4A Draft Outline Code of Construction Practice

March 2026



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Contents

4A. Draft Outline Code of Construction Practice

4A.1 Introduction

4A.1.1 This document is the Draft Outline Code of Construction Practice (CoCP) for the Chesterfield to Willington Project (the 'Project').

Overview of the Project

4A.1.2 The Project is still in development, and therefore the detailed design is still in development at this stage; however, the Project is likely to comprise the following principal components:

- A new 400 kV overhead line, approximately 60 kilometres (km) in length between a proposed new Chesterfield Substation and the existing Willington Substation. It is anticipated that this would comprise steel lattice pylons in accordance with National Grid's guidance and national planning policy.
- A new 400 kV Chesterfield Substation, to be built in the vicinity of the existing Chesterfield 275 kV Substation and the existing 132 kV National Grid Electricity Distribution Substation to the south east of Chesterfield (referred to as the 'new Chesterfield Substation'). This is proposed to be a gas insulated switchgear substation.
- Replacement of short sections of existing overhead line and local changes to the lower voltage distribution networks to facilitate the construction of the Project.

4A.1.3 Further details about the Project are presented in **Chapter 4 Description of Project** of the Preliminary Environmental Information Report (PEIR).

4A.1.4 The Project would connect into the existing Willington Substation located to the south west of Derby and a proposed new substation at Chesterfield. It is currently anticipated that the new Chesterfield Substation will be consented and delivered as part of a separate National Grid project (Chesterfield to High Marnham), distinct from this Project. However, it is possible that it will be decided to also include the new Chesterfield Substation works as part of the development consent order (DCO) application for this Project to provide an alternative consenting mechanism to remove reliance on that separate planning application/consent and so mitigate against the risk of delay to the delivery of the Project.

4A.1.5 In view of this potential inclusion, the new Chesterfield Substation and its potential environmental effects were considered in the Environmental Impact Assessment (EIA) Scoping Report (Ref 4A.1) which was submitted to the Secretary of State in October 2024, and is included within the PEIR and other relevant documents (where applicable) as part of this statutory (Stage 2) consultation. If the works are ultimately determined to be necessary to include as part of the Project, they will be considered as part of the Environmental Statement (ES).

4A.1.6 Any environmental mitigation and management measures that will be undertaken during construction of the Project associated with the new 400 kV Chesterfield Substation are therefore included within this Draft Outline CoCP.

4A.1.7 The draft Order Limits are located within the administrative boundary of Derbyshire and for the purpose of reporting in the PEIR, the Project has been divided into six geographical sections, running from north to south. These are presented in **Figure 1.1 Project Location and Route Sections** in **Volume 2** and comprise:

- Section 1: Chesterfield to Tibshelf;
- Section 2: Tibshelf to Ripley;
- Section 3: Ripley to Morley;
- Section 4: Morley to Ockbrook;
- Section 5: Ockbrook to Aston-on-Trent; and
- Section 6: Aston-on-Trent to Willington.

4A.2 Draft Outline CoCP

Purpose of the Draft Outline CoCP

4A.2.1 This is the Draft Outline CoCP for the Project, which has been produced to support the PEIR. It has been produced to set out the draft environmental mitigation and management measures that are expected to be undertaken during construction of the Project if the DCO is granted. The final CoCP will aim to ensure that adverse effects from the construction phase of the Project, on the environment and local communities, are minimised and controlled appropriately.

4A.2.2 This Draft Outline CoCP will be updated as the Project progresses to include any further environmental mitigation measures identified, where practicable, through the engineering design which continues to progress, the ongoing EIA process and feedback from consultation and engagement with stakeholders. An Outline CoCP will be submitted as an appendix to the ES as part of the DCO application. Following development consent being granted, the CoCP (or potentially CoCP(s)) would be prepared in advance of the relevant stages of construction works. The CoCP(s) would require approval from the relevant local planning authority, prior to the relevant stage of development and would be the responsibility of the Main Works Contractor to prepare and implement following the principles within the Outline CoCP which will be based on this Draft Outline CoCP. It is anticipated that the CoCP(s) would be secured via a requirement in the draft DCO.

4A.2.3 For the purposes of the assessments undertaken within the PEIR and ES, it has been assumed that the environmental mitigation measures in this Draft Outline CoCP will be in place before undertaking the preliminary assessment. This enables the assessment to be proportionate and focused on the likely significant effects that would be material to the decision.

4A.2.4 The Project would be delivered in compliance with all relevant legislation, consents and permits.

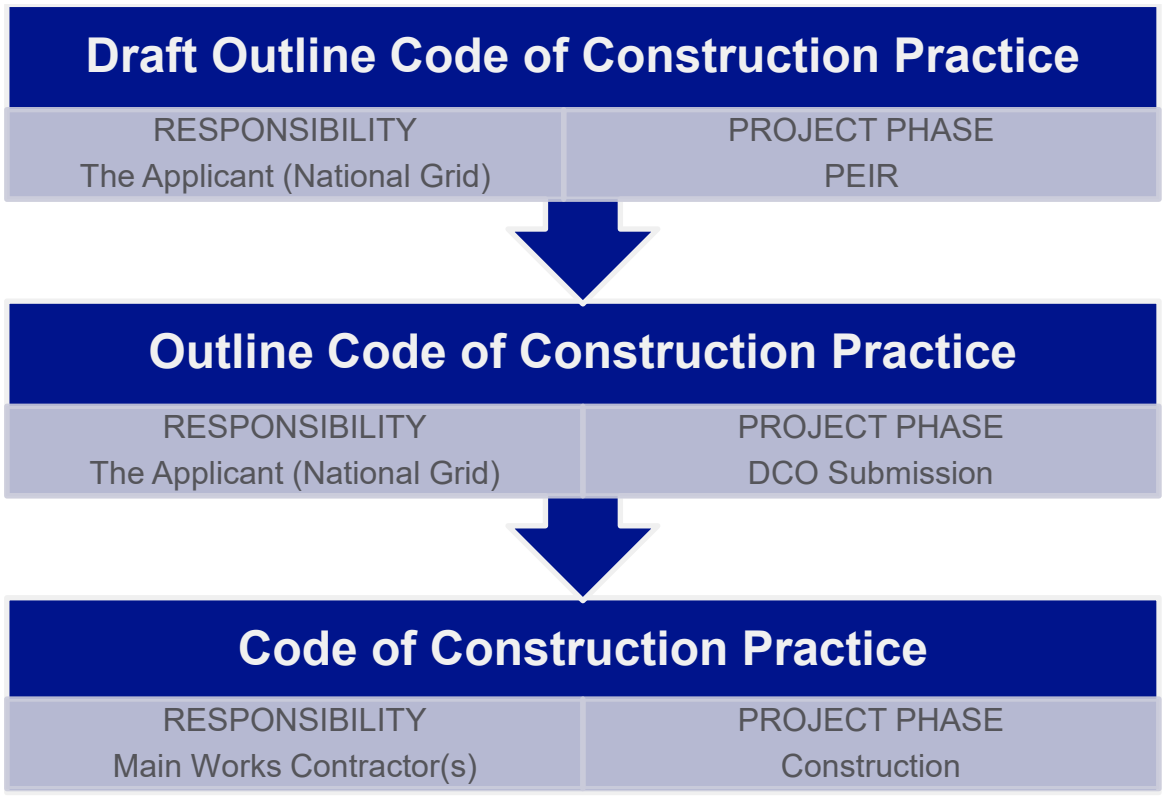
4A.2.5 National Grid will put in place robust procedures to audit and inspect the Project, including its supply chain of contractors, to ensure the mitigation measures set out in the approved CoCP(s), which will be in accordance with the Outline CoCP, are implemented during the construction phase of the Project.

4A.2.6 In addition to this Draft Outline CoCP, **Appendix 12B Preliminary Public Rights of Way Management Plan** has been prepared to support the PEIR. Other management plans are likely to be developed and submitted to accompany the DCO submission and would detail further environmental measures to avoid, reduce or offset identified environmental effects.

Preparation of the CoCP

4A.2.7 This section describes the three-stage iterative approach to developing the Draft Outline CoCP into the CoCP(s) that will be implemented throughout the construction of the Project. **Image 4A.1** provides an overview of the stages for the development of the CoCP(s

Image 4A.1: Stages for the development of the CoCP



Stage 1: Draft Outline CoCP

4A.2.8 This document has been produced to support the PEIR and to identify the mechanism in which the Project will capture and present the environmental mitigation measures that are required to manage, minimise and mitigate the environmental effects of the Project.

Stage 2: Outline CoCP

4A.2.9 The Draft Outline CoCP will be developed into the Outline CoCP which will be submitted as part of the ES, within the DCO application.

4A.2.10 The Outline CoCP will be prepared in parallel with the outline design, proposed construction methodology and the EIA. Environmental mitigation measures within the Outline CoCP will include construction mitigation which is identified through the technical assessments reported in the ES. In addition, and where appropriate, a

number of Outline Environmental Control Plans (ECPs) will be developed and accompany the Outline CoCP. The Outline ECPs will outline the parameters of topic-specific ECPs which will follow.

Stage 3: CoCP

4A.2.11 Following consent, the Outline CoCP would be developed into the CoCP(s) by the Main Works Contractor(s) which would be submitted to and approved by the local planning authority prior to construction works starting and would be adhered to throughout the construction phase.

4A.2.12 The CoCP(s) will include organisational information such as organograms as appropriate.

4A.2.13 The Outline ECPs would be further developed by the Main Works Contractor(s) after the consent has been granted and prior to the start of construction into ECPs. The ECPs would then be complied with when the relevant construction activities are carried out.

Compliance with the CoCP

4A.2.14 It is anticipated that compliance with the CoCP(s) and associated ECPs will be secured by Requirement(s) in the DCO (together with being a contractual obligation the appointed Main Works Contractor(s) will have to follow).

4A.3 Construction Principles

Construction Programme

4A.3.1 Subject to gaining development consent, construction works would be expected to start in 2029, and the Project infrastructure is anticipated to be operational by the end of 2031. Reinstatement works would likely continue beyond that. Prior to the start of the construction phase, certain advanced activities, such as archaeological investigations and/or environmental mitigation, may be carried out.

4A.3.2 The construction programme will be refined as the Project progresses, with consideration given to seasonal limitations, such as breeding or hibernation periods for protected species; reducing impacts associated with working within flood-prone areas; and network outage availability.

4A.3.3 Given the linear configuration of the Project, construction activities for the overhead line are expected to progress in fronts sequentially along the proposed route alignment, resulting in relatively short durations of work within any specific location compared to the overall programme. However, for the new Chesterfield Substation location, the works would be over a longer duration in the same area.

Construction Working Hours

4A.3.4 The core construction working hours would exclude start up and close down activities which would take up to one hour before and after the core construction working hours.

Proposed 400 kV overhead line

4A.3.5 The proposed core construction working hours for the overhead line elements (and associated works) are:

- 7am to 7pm on Monday to Friday; and
- 8am to 5pm on Saturday, Sunday and Bank Holidays.

4A.3.6 No piling operations would take place between 7pm and 7am, or on Sundays, Bank Holidays or other public holidays, unless otherwise agreed with the local planning authority. In addition, no HGV deliveries would be made to site between 7pm and 7am on Sundays, Bank Holidays or other public holidays.

4A.3.7 The following list details the typical operations proposed that may take place outside of the proposed core working hours, and deviations from the proposed core construction working hours that may be required for some activities. These, and any addition, would be agreed with the local planning authority:

- trenchless and overhead line crossing operations including beneath and over highways, railway lines, woodlands or watercourses;
- the installation and removal of conductors and pilot wires, including the utilisation of drones and/or helicopters;
- the installation and removal of protective netting across highways, railway lines, watercourses and other assets, including the utilisation of drones;
- pylon construction or demolition, and conductor and pilot installation or removal works that impact statutory bodies such as the Environment Agency, Network Rail, National Highways, the Canal and River Trust, or similar organisations, will likely be requested to be undertaken on a Saturday, Sunday, Bank Holiday, or outside core working hours;
- the jointing of underground cables (save for the cutting of underground cables);
- the continuation of operations started during the core working hours to a point where they can be safely paused;
- any highway works or movements requested by the relevant highway authority or National Highways to be undertaken on a Saturday, Sunday or a Bank Holiday or outside the core working hours;
- the testing or commissioning or any electrical plant installed as part of the authorised development;
- the completion of works delayed or held up by severe weather conditions which disrupted or interrupted normal construction activities that the undertaker and its contractor agree forms the critical path for the accepted construction programme; in such cases, the Project will, as soon as practicable, notify the relevant local planning authority of the disruption or interruption and explain why that work could not be completed within the core working hours;
- activity necessary in the instance of an emergency where there is a risk to persons or property or following a request made by the relevant planning authority;
- security monitoring;
- non-intrusive surveys;

- intrusive surveys, in the instance of an emergency, where there is a risk to persons or property or following a request made by the relevant planning authority; and
- delivery of Abnormal Indivisible Loads, for example the cable drums and switchgear equipment which would be delivered outside of core working hours to reduce the impact on the highway network.

New Chesterfield Substation

4A.3.8 The proposed core construction working hours for the new Chesterfield Substation are:

- 7am to 7pm on Monday to Friday; and
- 8am to 1pm on Saturday, with no works on Sunday and Bank Holidays.

4A.3.9 Deviations from the proposed core construction working hours may be required for some activities and these would be agreed with the local planning authority before taking place.

4A.3.10 Systems outages may take place outside of these hours. Typically, system outages take place during the clock change periods for standard summer working (end of March to end of October), but at times they may be needed over the winter period. During outages, some weekend working may be required.

Approach to Energy Consumption

4A.3.11 The Project would consume energy during manufacture and construction. The Project would consider a range of measures to reduce energy consumption during construction, such as the use of energy efficient plant and equipment, where practicable. The Project will aim to use local grid supply points for temporary site power, where feasible. Where not practicable an alternative sustainable option would be used, such as appropriately sized alternatively fuelled or hybrid generators where feasible.

4A.4 Project Team Roles and Responsibilities

Environmental Management Systems

4A.4.1 The Project will implement management processes and briefings so that the works are carried out in accordance with current legislation and guidance at the time of construction. This will be achieved by application of well-established work processes that apply the recognised British Standard (BS) EN ISO 14001:2015 (Ref 4A.2) or equivalent.

4A.4.2 The Main Works Contractor(s) will have an Environmental Policy that meets the requirements of ISO 14001 or equivalent, through their internal Business Management System procedures. The policy statement will be displayed on the site notice boards, publicised to all site staff and operatives, and made available to interested parties upon request.

Project Responsibilities

4A.4.3 A management structure that includes an organisational chart encompassing all key roles responsible for environmental work(s) will be included within the Outline CoCP. This will set out the respective roles and responsibilities with regards to the environment and identify the nominated Construction Environmental Manager(s). Some roles will be required only during specific construction activities or at specific locations and a nominated person will be appointed as appropriate. Depending on experience and demands some roles could be covered by the same person.

4A.4.4 A non-exhaustive and illustrative set of key roles and responsibilities is provided in **Table 4A.1** and shall be updated later in the process.

Table 4A.1: Illustrative key roles and responsibilities for the Project

Role Title (or equivalent)	Likely Organisation	Responsibilities
Project Manager	National Grid/Main Works Contractor(s)	The Project Manager is responsible for performance throughout the construction period within their designated areas, ensuring that sufficient resources are provided, that environmental controls are agreed and any necessary protection measures are effectively implemented by the Project.
Site Manager	National Grid/Main Works Contractor(s)	The Site Manager will monitor construction activities and performance to verify compliance with the CoCP(s) for the relevant work areas, ensuring that all identified and appropriate control measures are functioning effectively.
Environmental Manager(s) and advisors	National Grid/Main Works Contractor(s)	The Environmental Manager(s) will be responsible for the maintenance of all environmental plans and registers, including monitoring that the environmental mitigations are implemented on-site and as required by the CoCP(s). They will be the main point of contact for internal and external stakeholders on all environmental matters of the Project. They will also seek to develop good working relationships with external stakeholders such as the Environment Agency, Natural England, and the relevant planning authorities.
Environmental Clerk of Works (EnvCoW)	Main Works Contractor(s)	The EnvCoW(s) would be available during the construction phase to advise, supervise and independently report on the delivery of the mitigation methods and controls outlined in the CoCP(s). The EnvCoW(s) independently monitors that the works proceed in accordance with relevant environmental DCO requirements and adhere to the required good practice and mitigation measures. The EnvCoW(s) will engage with Environmental Manager(s) on ongoing compliance and will be supported (if required) by appropriate technical specialist advisors depending on the location, activity and potential effects.
Ecological Clerk of Works (ECoW)	Main Works Contractor(s)	The ECoW(s) will monitor the works to ensure compliance with any licences, permits and consents obtained to avoid effects on protected species and habitats, along with ensuring compliance with environmental legislation and any ecological controls in the CoCP(s). The ECoW would:

Role Title (or equivalent)	Likely Organisation	Responsibilities
		• provide ecological advice to the Main Works Contractor over the entire construction programme, as required; • undertake or oversee pre-construction surveys for protected species in the areas affected by the Project; • monitor ecological conditions during the construction phase to identify features that may arise as a result of natural changes to the ecological baseline over time; • provide ecological toolbox talk(s) to site personnel to make them aware of ecological features and information, identify appropriate mitigation to minimise impacts, and make site personnel aware of their responsibility with regard to wildlife; and • oversee the implementation of the mitigation measures during the construction phase to ensure compliance with protected species legislation and commitments within the CoCP(s).
Archaeological Clerk of Works (ACoW)	Main Works Contractor(s)	The ACoW(s) will be responsible for implementing archaeological mitigation measures and providing ongoing advice to the Main Works Contractor throughout the construction program as needed. The ACoW would: • provide archaeological advice to the Contractor throughout the construction programme as necessary; • ensure that archaeological works set out in the OWSI are implemented, and review all site-specific archaeological method statements required in the delivery of the works set out in the OWSI; • undertake on-site monitoring of the delivery of the archaeological works; and • maintain liaison with the local planning authority archaeology advisor and other stakeholders.

Role Title (or equivalent)	Likely Organisation	Responsibilities
Arboricultural Clerk of Works (ArbCoW)	Main Works Contractor(s)	The ArbCoW(s) will monitor works conducted by a suitably qualified and experienced arborist to/within proximity to high grade trees, including trees under Tree Preservation Orders and veteran trees, to ensure relevant control and mitigation measures are in place to protect these trees.
Permits and Consents Manager(s)	Main Works Contractor(s)	The Permits and Consents Manager(s) will collaborate with the Environmental Manager(s) to draft and submit applications for any additional permits and consents on behalf of the Project, track the progress, provide updates, and communicate approvals.
Works Supervisor(s)	Main Works Contractor(s)	The Works Supervisor(s) will be responsible for delivering the works in accordance with the requirements of the CoCP(s) and any other relevant environmental permits, consents or legislation and implementing good environmental practices required by the Environmental Manager(s). They are responsible for managing operatives, plant, materials and their areas of work in accordance with the principles of good environmental practice.
Agricultural Liaison Officer(s)	TBC	The Agricultural Liaison Officer(s) will provide a single point of contact between the Main Works Contractor(s) and the landowner/occupier of the land. They will be responsible for delivering site access in line with pre-agreed timescales, and will help facilitate the dialogue between the Main Works Contractor(s) and the landowner/occupier as necessary and will be the first point of contact for any issues escalated by the landowner/occupier or the Main Works Contractor(s). They will be responsible for witnessing and agreeing all land condition surveys conducted by the Main Works Contractor(s).
Technical Specialist Advisors	Main Works Contractor(s)	Individuals with relevant professional experience who may be required to supervise the relevant aspects of the works, which might include land contamination specialist, soil specialist, or archaeologist, etc., if required.

Information Training and Awareness

4A.4.5 In accordance with good practice measure GG06 (see **Table 4A.2**), all staff and operatives working on the Project will undergo briefings (e.g. site inductions, toolbox talks) where relevant to increase their awareness of environmental issues as applicable to their role on the Project. Topics would include but not be limited to:

- working hours;
- ecology: working in or adjacent to protected sites and priority habitats, protected species, management, mitigation and controls;
- water management: legislation, buffer zones, control mechanisms, flood risks and emergency response procedures;
- waste management: legislation, segregation, contamination, best practice;
- agreed traffic routes and access points;
- nuisance: dust, behaviour, noise, vibration, management and controls;
- working around trees: tree and root protection;
- soil resource: soil plasticity testing and soil protection;
- contaminated land: recognising and dealing with contaminated material;
- pollution prevention and incident response; and
- spill and emergency response.

4A.4.6 Specific briefings will be identified and provided for all personnel involved in work activities that could result in an adverse effect on the environment where required. The briefings will include reference to the importance of adhering to the contents of the CoCP(s) and the potential consequences of departure from specified method statements.

4A.4.7 Environmental briefing in the form of toolbox talks will also be undertaken on-site, evidence of which (along with all other briefings) will be maintained on record as part of the Main Works Contractor(s) management system.

4A.4.8 Prior to starting work on-site, all personnel will also undergo a site induction, where the Main Works Contractor(s) will communicate the environmental objectives, requirements, and responsibilities to the workforce. Environmental Site Rules will detail site personnel's obligations while on-site. This will introduce accountability for personnel working on the Project.

4A.4.9 Site-specific environmental information will be made available for reference by the site teams where required and will be included in the site supervisors work pack.

Consents, Commitments and Permissions

4A.4.10 The Project will be constructed and operated in accordance with all relevant legislation, consents and permits. The Permits and Consents Manager(s) for the Main Works Contractor(s) will be responsible for drafting and submitting applications for permits and consents on behalf of the Project, tracking the progress, providing updates, and communicating approvals. This is with the exception of any consents, commitments and permissions that would be included within the DCO. A list of the anticipated licences, assents, consents and permits required to deliver the Project will be outlined in the Outline CoCP.

Community Engagement and Public Information

4A.4.11 A system will be implemented for the provision of a community relations team to provide information to local communities about the works during construction. The information to be provided to local residents will be specific to the works to be carried out, describing the nature of the works, the location and extent of the works, the duration of works and the hours to be worked, as appropriate.

4A.4.12 Local residents will be informed of the start and likely duration of the construction work activities through a letter drop. It is anticipated that the letter(s) will be tailored to a specific area and reflect the works to be carried out and the duration of works. The letter will include a contact telephone number, which would be operated at all times that construction activities are being undertaken on-site.

4A.4.13 An emergency telephone number for the Project will be displayed at the entrance to the site compounds. In addition, it is anticipated that details of the works, including contact details, will be provided to relevant community groups, such as the local parish councils and landowners before work starts.

4A.4.14 A free telephone Project helpline and Project website will be maintained and managed by the National Grid community relations team. The Project helpline and website information will be displayed on boards placed in appropriate locations where they will be visible to the public.

4A.4.15 The community relations team will record the details of any complaints and how these are to be investigated and appropriately managed.

Emergency Procedures

4A.4.16 National Grid has the following processes in relation to an emergency incident during construction. The primary objectives in responding to any incident are as follows:

- preserve and protect life;
- prevent or mitigate damage to the environment; and
- prevent or mitigate losses to property.

4A.4.17 In accordance with good practice measure GG23 (see **Table 4A.2**), the Main Works Contractor(s) will develop an Emergency Response Plan that will set out the specific incident response procedures. This will detail the roles and responsibilities aligned with the delivery strategy for construction. Details and close out actions of incidents that have been reported to the relevant planning authorities will be provided as soon as practicable.

4A.4.18 Relevant organisations will be contacted as part of the incident response. These include but are not limited to the Environment Agency, relevant planning authorities, Natural England, gas/water/electricity providers and the relevant emergency services.

4A.5 Environmental Mitigation Measures and Commitments

4A.5.1 Good practice mitigation measures have been identified that would reduce impacts from the Project on the environment and are presented in **Table 4A.2**. These are generally measures that would normally be implemented on a well-run construction site but also include good practice mitigation and specific mitigation measures that have been identified through the EIA scoping and the preliminary environmental

assessments. They also include measures that have typically been employed on other National Grid projects. Good practice mitigation measures in **Table 4A.2** are assigned a reference number (for example GG01) for ease of cross-reference.

4A.5.2 **Table 4A.2** will be updated within the Outline CoCP (submitted with the DCO application) to include all construction phase good practice and relevant additional mitigation required during construction. A definition of the mitigation types is provided in Chapter 5 Approach to Preliminary Environmental Information Report. Mitigation measures within the Outline CoCP will be consistent with mitigation outlined within the ES.

4A.5.3 An Outline Landscape and Ecological Management Plan (LEMP) will be produced in parallel to the Outline CoCP and submitted as part of the DCO application. This will outline the landscape and ecological planting measures required as part of the design.

4A.5.4 Alongside the mitigation measures outlined in **Table 4A.2**, the following potential ECPs have been identified as likely to have plans to be secured within the ES or have the requirement for prior to construction:

- Outline Written Scheme of Investigation (OWSI) for Archaeology;
- Outline Soil Management Plan (Outline SMP) or equivalent;
- Outline Construction Traffic Management Plan (Outline CTMP) or equivalent;
- Outline Public Rights of Way Management Plan (Outline PRoWMP) or equivalent;
- Outline Construction Worker Travel Plan (Outline CWTP) or equivalent;
- Dust Management Plan (DMP);
- Site Waste Management Plan (SWMP);
- Materials Management Plan (MMP); and
- Construction Noise and Vibration Management Plan (CNVMP)

4A.5.5 The list above is not exhaustive; as the EIA progresses additional ECPs may be identified, depending on predicted impacts

Table 4A.2: Control and management measures

Ref ID	Control and Management Measures
General Project Commitments	
GG01	The Project will be delivered in compliance with all relevant legislation, consents and permits.
GG02	Environmental Control Plans will be produced prior to construction. These may include, but are not limited to the following: • Outline Written Scheme of Investigation (OWSI) for Archaeology; • Outline Soil Management Plan (Outline SMP) or equivalent; • Outline Construction Traffic Management Plan (Outline CTMP) or equivalent; • Outline Public Rights of Way Management Plan (Outline PRoWMP) or equivalent; • Outline Construction Worker Travel Plan (Outline CWTP) or equivalent; • Dust Management Plan (DMP); • Site Waste Management Plan (SWMP); • Materials Management Plan (MMP); and • Construction Noise and Vibration Management Plan (CNVMP)
GG03	A suitably experienced Environmental Manager(s) would be appointed for the duration of the construction phase. In addition, a qualified and experienced Environmental Clerk of Works would be available (if required depending on workload) during the construction phase to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CoCP(s). The Environmental Clerk of Works would monitor that the works proceed in accordance with relevant environmental CoCP requirements and adhere to the required good practice and mitigation measures. The Environmental Clerks of Works would be supported as necessary by appropriate specialists, including ecologists and arboriculturists, soils and land experts, if required.
GG04	Construction workers would undergo briefings (e.g. site inductions, toolbox talks) where relevant, to increase their awareness of environmental issues as applicable to their role on the Project. Topics would include but not be limited to: • working hours; • ecology: working in or adjacent to protected sites and priority habitats, protected species, management, mitigation and controls;

Ref ID	Control and Management Measures
	• water management: legislation, buffer zones, control mechanisms, flood risks and emergency response procedures; • waste management: legislation, segregation, contamination, best practice; • agreed traffic routes and access points; • nuisance: dust, behaviour, noise, vibration, management and controls; • working around trees: tree and root protection; • soil resource: soil plasticity testing and soil protection; • contaminated land: recognising and dealing with contaminated material; • pollution prevision and incident response; and • spill and emergency response.
GG05	A record of condition would be carried out (photographic and descriptive) of the working areas that may be affected by the construction activities. This record would be available for comparison following reinstatement after the works have been completed to ensure that the standard of reinstatement at least meets that recorded in the pre-condition survey where practicable.
GG06	Land used temporarily would be reinstated where practicable to its pre-construction condition and use. Hedgerows, fences and walls (including associated earthworks and boundary features) would be reinstated to a similar style and quality (where practicable) to those that were removed, with landowner agreement.
GG07	Where sensitive features are to be retained within the Order Limits, an appropriate protective area would be established using appropriate fencing and signage and would be inspected, repaired and replaced as necessary. The protective areas would be shown on the Retention and Reinstatement Plans contained within the LEMP, or equivalent ECP.
Construction Site Set Up	
GG08	The name and contact details for the Project would be displayed at the entrance to all compounds. This would include an emergency number.
GG09	Appropriate site layout and housekeeping measures would be implemented by the Main Works Contractor(s) at all construction sites. This would include but not be limited to: • suitable management of risk of pest and vermin;

Ref ID	Control and Management Measures
	• arrangements for the proper storage and disposal of waste produced on-site; • inspecting and collecting any waste or litter found on-site; • locating or designing site offices and welfare facilities to prevent the overlooking of residential properties where possible; • locating designated smoking/vaping areas to avoid nuisance to neighbours; • managing staff/vehicles entering or leaving site, especially at the beginning and end of the working day; and • managing potential off-site contractor and visitor parking to ensure they are safe.
GG10	Any activity carried out or equipment located within a construction compound that may produce a noticeable nuisance, including but not limited to dust, noise, vibration and lighting, would be located away from sensitive receptors such as residential properties or ecological sites where practicable.
GG11	Plant and vehicles would conform to relevant applicable standards for the vehicle type. Vehicles would be correctly maintained and operated in accordance with manufacturer's recommendations and in a responsible manner. Where applicable, all plant and vehicles would be required to switch off their engines when not in use and when it is safe to do so.
GG12	Materials and equipment would not be moved or handled unnecessarily. The loading and unloading of materials from vehicles would be controlled, including cable drums and excavated materials.
GG13	Fuels, oils and chemicals would be stored responsibly, away from sensitive water receptors. All refuelling, oiling and greasing of construction plant and equipment would take place above portable spill containment mats and also away from drains as far as is reasonably practicable. Vehicles and plant would not be left unattended during refuelling. Appropriate spill kits would be available for these activities. Potential hazardous materials used during construction would be safely and securely stored including use of secondary containment where appropriate. Stored flammable liquids such as diesel would be protected either by double walled tanks or stored in a bunded area with a capacity of 110 per cent of the maximum stored volume. Spill kits would be located nearby.
GG14	Runoff across the site would be controlled through a variety of methods including, but not limited to, header drains, buffer zones around watercourses, on-site ditches, silt traps, bunding and the like. There would be no discharge of site runoff to ditches, watercourses, drains or sewers without appropriate treatment and agreement of the appropriate authority (except in the case of an emergency).

Ref ID	Control and Management Measures
GG15	Wash down of vehicles and equipment would take place in designated areas, for example within construction compounds and intermittently along construction access roads. Wash water would be prevented from passing untreated into watercourses and groundwater. Appropriate measures would include use of sediment traps or similar measures.
GG16	Wheel washing facilities would be provided at each main compound, where appropriate. Road sweepers would be deployed on public roads where necessary to prevent excessive dust or mud deposits.
GG17	Earthworks and stockpiled soil would be protected by covering, seeding or using water suppression where appropriate.
GG18	Bonfires and the burning of waste material would be prohibited.
GG19	Construction lighting would be of the lowest luminosity necessary to safely perform each task. It would be designed, positioned and directed to reduce the intrusion into adjacent receptors such as public highways, properties and communities, protected species and habitats. This would also look to minimise any skyglow (particularly in respect of landscape character where dark skies may be a characteristic).
GG20	A Site Waste Management Plan (SWMP) would be developed prior to construction. The Main Works Contractor(s) would maintain and monitor the SWMP throughout the construction phase and oversee that any sub-contractor(s) adhere to the SWMP. The SWMP would set out, in an auditable manner, how waste would be reduced, reused, managed and disposed of in accordance with the waste hierarchy. Dedicated areas would be identified on the construction plans to allow materials and wastes to be segregated at source, reducing the risk of damage or contamination. Consideration would be given to the guidance in the Code of Practice developed by Contaminated Land: Applications in Real Environments (CL:AIRE), A Definition of Waste: Development Industry Code of Practice (DoWCoP) (Ref 4A.3). Dedicated waste management areas would be designed to sufficiently accommodate the types and volumes of waste produced and to reduce the environmental risk of storing waste on-site to prevent release to the environment.
GG21	An Emergency Response Plan would be developed for the construction phase which would outline procedures to be implemented in case of unplanned events, including but not limited to site flooding and pollution incidents.
GG22	Where necessary stone pads would be installed in areas where heavy equipment, such as cranes and piling rigs, are to be used. The stone pads would provide stable working platforms and would reduce disturbance to the ground. The stone pad area would be stripped of the soil, which would be stored and reinstated in accordance with the soil management measures contained in the relevant ECPs.

Ref ID	Control and Management Measures
GG23	Working areas would be appropriately fenced. The type of fencing installed would depend on the area to be fenced and would take into consideration the level of security required in relation to the surrounding land and public access, rural or urban environment and arable or stock farming. For some locations the fence used may also serve to provide acoustic and visual screening of the work sites and reduce the potential for disturbance of users in the surrounding areas. Fencing would be regularly inspected and maintained and removed as part of the demobilisation where required.
GG24	Active private water supplies would be identified with landowners through landowner engagement. Appropriate protective measures would be considered during construction. In the event of a landowner or tenant reporting that construction activities have affected their private water supplies, an initial response would be provided. Where the construction works have affected a private water supply, an alternative water supply would be provided, as appropriate until the original water supply can be satisfactorily reinstated.
GG25	The construction work area would be reinstated to pre-existing conditions as far as reasonably practical in line with a SMP and the Department for Environment, Food and Rural Affairs (Defra) 2009 Code of Construction Practice for the Sustainable Use of Soils on Construction Sites (Ref 4A.4).
Landscape and Visual	
LV01	Application of tree protection measures in accordance with British Standard (BS) 5837:2012: Trees in relation to design, demolition and construction (Ref 4A.5) and the UK government 'Standing Advice' for ancient woodland, ancient trees and veteran trees. All works to high grade trees, including trees under Tree Preservation Orders and veteran trees, would be undertaken or supervised by a suitably qualified arboriculturist. This would be applied to trees within the Order Limits, which would be preserved through the construction phase, and to trees outside of the Order Limits where such measures do not hinder or prevent the use of the relevant working width for construction.
LV02	The Main Works Contractor(s) would retain vegetation where practicable. Where vegetation is lost and trees cannot be replaced *in situ* due to the restrictions associated with land rights required for operational safety, replacement vegetation would be planted as close by as practicable and would complement landscape character. Planting would be selected to complement the existing local habitat and designed to enhance biodiversity value. The protective areas would be shown on the Retention and Reinstatement Plans contained within the LEMP, or equivalent ECP.
LV03	Where works require crossing or removing hedgerows, the opening would be kept to the minimum width necessary for safe working or other environmental considerations.

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LV04	A form of 'dead hedging' could be used, where practicable, in the interim periods to retain connectivity during construction. Dead hedging can comprise vegetation arisings or artificial provision, such as willow screening panels and the like.
LV05	New hedgerow planting would contain species that would comprise a mixture of native species consistent with the local geographic area.
LV06	A LEMP will be produced (in accordance with the Outline LEMP) and will provide the approach to the planting mitigation of landscape, visual and ecological effects of the Project. The Outline LEMP will be submitted as part of the ES.
LV07	Construction works would be carried out during core working hours (as set out in the CoCP), where practicable.
LV08	A five-year aftercare period would be established for all mitigation planting.
Ecology and Biodiversity	
B01	The Main Works Contractor(s) would comply with relevant protected species legislation. Appropriate licences would be obtained where necessary from Natural England or the Environment Agency for all works affecting protected species as identified by the ES and through pre-construction surveys. All applicable works would be undertaken in accordance with the relevant requirements and conditions set out in those licences.
B02	Prior to construction, a suitably qualified and experienced ECoW (or team of ECoWs) would be appointed to support the Main Works Contractor with implementation of ecological mitigation as outlined in **Table 4A.1** above.
B03	Prior to any works starting at a given location, a pre-start walkover survey would be completed by the ECoW of the works area plus a zone of influence (as determined by the ECoW) to confirm that baseline conditions remain accurate and relevant or identify otherwise. The zone of influence is anticipated to be a minimum of 30 m (related to badger setts and excavation works) but would be extended as appropriate to account for relevant ecological features and construction activities at the locality.
B04	At sensitive crossing locations (e.g. rivers), existing access routes would be used as far as reasonably practicable and the width of any required working area kept to the minimum required to facilitate the works. If access upgrades are required or a new crossing is needed, preference would be for use of temporary bridges or culverts to be installed rather than using in-stream fords or other methods that involve directly crossing through the watercourse. The crossing method would be agreed with the relevant authority.

Ref ID	Control and Management Measures
B05	Where practical, sensitive sites including Sites of Special Scientific Interest, Local Nature Reserves, local conservation designations (Local Wildlife Site, Potential Local Wildlife Site and Derbyshire Wildlife Trust Reserves), ancient woodland, Wildlife Trust and Royal Society for the Protection of Birds reserves would be avoided where practicable when micro-siting the likely working areas.
B06	The avoidance of periods of sensitivity is considered best practice for a range of protected and notable species, and construction activities where reasonably practicable would be planned accordingly. For example, to avoid destruction of active bird nests, where practicable, in any areas where vegetation clearance is required, such works would be undertaken outside the breeding bird season (outside March–August, inclusive[1]). Where the clearance of suitable vegetation is required, works would be preceded by an inspection by a suitably experienced ecologist and may be supervised by an ECoW. If an active nest is identified, a suitable exclusion zone (as advised by qualified ecologist depending on species) would be implemented and remain in place until the ecologist confirms the nest is no longer active.
B07	Any required vegetation removal that is suitable to harbour amphibians, reptiles and small mammals would be subject to a two-stage cut and overseen by an ECoW. Firstly, vegetation would be cut to approximately 150 mm (with the arisings removed or suitably managed). A second cut down to ground level would then be undertaken, following a period of time to allow animals to naturally disperse from the area. In areas of high suitability habitat where there is high risk of encountering amphibians, reptiles and/or small mammals, this would be a minimum of 24 hours. The length of this time is to be determined at the discretion of the ECoW. Vegetation would be cleared during suitable weather and seasonal conditions and using appropriate equipment based on the type of vegetation to be removed, the area affected, and the risk of mortality or injuring animals.
B08	Where works require crossing or removing hedgerows, the opening would be kept to the minimum width necessary for safe working or other environmental considerations. New hedgerow planting would contain species that would comprise a mixture of native species consistent with the local geographic area.
B09	In line with good practice, pollution prevention plans or equivalent would be drawn up to detail how ground and surface waters would be protected during construction and operation (including maintenance). These would include information on the storage of any fuels, oils and other chemicals and pollution incident response planning.

[1] Nesting may occur earlier or later for some species in response to weather conditions.

Ref ID	Control and Management Measures
B10	In line with good practice, measures to minimise any risk of effects on ecological features from dust emissions would be informed by the construction dust risk assessment and set out within a Dust Management Plan or equivalent. This would include the use of standard dust suppression methods.
B11	Areas of temporary habitat loss would be reinstated, wherever practicable, following the completion of construction in each area. Habitats would be reinstated on a like-for-like basis, unless they cannot be replaced due to operational restrictions including the restrictions associated with land rights required for safe operation and structure of the Project. Species would comprise a mixture of native species complementing the existing local habitat and designed to enhance biodiversity value. Planting would be undertaken in the appropriate planting season but as soon as possible following completion of the works to reduce the likelihood of undesired colonisation by flora or invasive non-native species (INNS). Areas of permanent habitat loss (and temporary habitat loss greater than two years) would be considered within the Project's Biodiversity Net Gain assessment alongside development of bespoke mitigation and compensation strategies, where necessary.
B12	A lighting design of all temporary and permanent lighting would be developed; however, the principles of lighting design will be detailed further for the ES and informed by the joint guidance provided by the Bat Conservation Trust and Institution of Lighting Professionals (Ref 4A.6). The lighting design would account for the potential effects on terrestrial ecology by taking measures to minimise lighting usage, minimise light spill, use the most appropriate wavelengths of light and locate lighting in the most appropriate locations – this is to decrease the potential displacement and disturbance effects on light sensitive fauna such as bats.
B13	The use of tried and tested invasive species control and biosecurity measures, in accordance with Defra guidelines to avoid the spread of INNS and infested materials would be applied. A Biosecurity Method Statement (or equivalent) shall be prepared and implemented throughout construction and would outline proposed avoidance, mitigation and control measures (as needed) to avoid the spread of invasive plant species. This would also consider biosecurity measures to manage the potential risk of spreading disease between farm holdings. Where practicable, works areas would be micro-sited to avoid contaminated locations. Measures may include the implementation of washing stations for both people and vehicles within 'risk' areas.
B14	Where practicable, excavations would be created and backfilled within the same working day. Where excavations are proposed to be left unfilled overnight, and there would be a risk of animal entrapment, the void would be securely covered, or a means of escape would be installed.
B15	Works would be undertaken following precautionary working method statements (PWMS), where required, to minimise impacts to protected/notable species and habitats. An ECoW would be present to ensure the implementation of measures within the PWMS, where required. Specific protected species and/or habitats detailed within the precautionary method statement, and the

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	associated mitigation measures, would be informed by the findings of the surveys undertaken to support the development of the ES and those recorded during pre-construction surveys.
Historic Environment	
HE01	Wherever possible, heritage assets and archaeological remains identified through desk-based assessment and field evaluation will be avoided by the Project design. Where avoidance has not been possible, archaeological mitigation measures comprising a programme of archaeological investigation will be implemented. This programme of archaeological works will be secured through the DCO and will be undertaken in areas of impact to ensure buried archaeological remains are preserved by record, proportionate to their importance. The results of this will be presented in written reports and any other formats to be agreed and made available to the public. The scope of this will be set out in the OWSI for archaeology as part of the ES. The exact methodology at each site will be discussed with the relevant stakeholders but may include archaeological excavation or areas of controlled strip or trenching, map and record.
HE02	The Project would limit ground disturbance within the Order Limits to only that required to construct, operate and maintain the Project to minimise disturbance to buried archaeology.
HE03	Where practicable, measures would be employed to minimise disturbance to identified archaeological remains within the Order Limits. The location of such archaeological remains would be signposted/fenced off to avoid unintentional damage, and these would be identified on plans within the Written Scheme of Investigation.
HE04	The use of ground protection measures would be considered for temporary access within areas of archaeological interest, where possible and appropriate, to minimise or avoid disturbance or compaction of archaeological deposits.
HE05	Where a previously unknown heritage asset has been discovered, or a known heritage asset has proven to be more significant than foreseen at the time of application, the Project would inform the local planning authority and discuss a solution that protects the significance of the new discovery, so far as is practicable within the Project parameters.
HE06	Where practicable, the Project would maintain elements within the landscape such as vegetation and hedgerows (including re-instating hedgerows, fences and walls).
HE07	A suitably qualified and experienced archaeological contractor would be appointed to undertake archaeological mitigation measures. Prior to construction, a suitably qualified and experienced (or team of suitably qualified and experienced) Archaeological Clerk of Works (ACoW) would be appointed to support with implementation of archaeological mitigation. Please see **Table 4A.1**.

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Hydrology and Land Drainage	
HD01	Environmental permits and consents for all qualifying works, e.g. dewatering of excavations, working in, over or under relevant watercourses will be secured where these are required.
HD02	Where practicable, stockpiles of soil would be located a suitable distance from watercourses.
HD03	Riverbank and in-channel vegetation would be retained where not directly affected by construction works, ecological mitigation and operation of the Project infrastructure. Natural bed substrate would be provided where temporary culverts are installed to facilitate access and crossings of Main Rivers would be either culvert or an open span bridge where access is required subject to design, constructability, and site constraints. • Once the temporary culvert is installed, the area above the temporary culvert would be backfilled with suitable engineering material, such as construction mats or engineered fill, placed over the backfilled area to permit the passage of plant, equipment, materials, and people. Temporary culverts would be sized to reflect the span width, profile and the estimated flow characteristics of the watercourse under peak flow conditions and kept free from debris. Where used, temporary bridges would be designed specifically to consider the span length, and the weight and size of plant and equipment that would cross the bridge. Any culverted/bridged crossing would be subject to the appropriate consent by the relevant drainage authority (Flood Risk Activity Permit from the Environment Agency for Main Rivers, Ordinary Watercourse Consent (OWC) from the Lead Local Flood Authority (LLFA) or Internal Drainage Board (IDB) for ordinary watercourses). • On completion of the works, temporary crossings would be removed unless otherwise agreed with the landowner, relevant authorities and stakeholders. Where temporary crossings are removed, there would be reinstatement of the riparian vegetation and natural bed of the watercourse.
HD04	Where construction activities take place in Flood Zone 3, work areas would be laid out in accordance with the Sequential Approach at the site level and incorporate flood resilience measures where necessary. Storage of construction equipment and materials at active work fronts and in temporary laydown areas would be done in such a way as to avoid forming barriers to floodplain flows.
HD05	In accordance with Environment Agency guidance, LLFA and IDB requirements, buffers between pylons and watercourses will be adhered to where practicable.
HD06	Fuels, oils and chemicals would be stored responsibly, away from sensitive water receptors. In the event of a significant spill during construction, all relevant landowners/tenants and stakeholders would be contacted in a timely manner, to determine if

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	there are any private water supplies that might be affected; an assessment of the likelihood of groundwater contamination reaching identified private water supplies would be undertaken; and, if deemed necessary, appropriate measures would be implemented to resolve the issue.
HD07	All refuelling, oiling and greasing of construction plant and equipment would take place above portable spill containment mats and also away from drains as far as is reasonably practicable.
HD08	Vehicles and plant would not be left unattended during refuelling.
HD09	Appropriate spill kits would be made available.
HD10	Potentially hazardous materials used during construction would be safely and securely stored including use of secondary containment where appropriate.
HD11	Stored flammable liquids such as diesel would be protected either by double bunded tanks or stored in a bunded area with a capacity of 110 per cent of the maximum stored volume.
HD12	Wash down of vehicles and equipment would take place in designated areas within construction compounds. Wash water would be prevented from passing untreated into watercourses.
HD13	Runoff across the site would be controlled through a variety of methods including but not limited to, header drains, buffer zones around watercourses, on-site ditches, silt traps and bunding and the like. These provisions would use drainage hierarchy and Sustainable Drainage Systems principles.
HD14	An Emergency Response Plan would be developed for the construction phase which would outline procedures to be implemented in case of unplanned events, including but not limited to extreme weather events, flood response and evacuation procedures, and pollution incidents.
HD15	The Main Works Contractor would subscribe to the Environment Agency's Floodline service, which provides advance warning of potential local flooding events, and subscribe to the Met Office's Weather Warnings email alerts system and any other relevant flood warning information.
HD16	Active private water supplies and land drains would be identified with landowners through landowner discussions. Appropriate measures would be considered during construction to mitigate the risk of damage/loss.

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	• Severance of existing land drainage routes, including agricultural field drainage systems would be managed during construction through provision of temporary alternative drainage routes, and these drainage systems would be permanently reinstated where practicable to ensure their existing function is maintained. This would also take into account surface water runoff measures and includes the avoidance of the creation of preferential drainage pathways.
HD17	Temporary cofferdams would be used if required, to exclude work areas from the water bodies, thus reducing the risk of increased sediment loads or hazardous substances entering the main water flow.
HD18	During open cut crossings of watercourses in order to bury cables, if necessary, the watercourses would be temporarily dammed and over-pumped.
HD19	Where practicable, construction works would avoid works on watercourses during high flow events to reduce the risk of fine sediment release and reduce the risk to construction staff from flooding.
HD20	The Project would incorporate appropriate surface water drainage measures into its final design for the haul roads, access tracks, works compounds and laydown areas so that they do not lead to a significant increase in flood risk and silt run off. Temporary haul routes within Flood Zone 3 and areas of high and medium risk of flooding from surface water would be removed at the end of the construction phase and the ground surface would be reinstated to pre-project levels where practicable. The potential impact of temporary haul routes, which cross the floodplain, on flood flows would be assessed and the assessment and design of the temporary haul route would be agreed with the Environment Agency through the Flood Risk Activity Permit application and with the LLFA through the OWC process.
Geology and Hydrogeology	
GH01	Geo-environmental and geotechnical intrusive and non-intrusive ground investigation and assessment would be undertaken in accordance with current (at the time of the works) best practice including BS 5930 (Ref 4A.7), BS 10175 (Ref 4A.8) and Eurocode 7 (Ref 4A.9) and Land Contamination Risk Management (Ref 4A.10) which would inform, if required, a site remediation strategy, slope stability assessments, foundation design, and piling risk assessments where appropriate. This would be undertaken as part of the detailed pre-construction survey and design for implementation during construction.
GH02	Construction methods such as appropriate piling techniques (if required) to minimise the risk of mixing of aquifer bodies through the creation of new pathways would be utilised. Foundation Works Risk Assessments would be undertaken in accordance with the CL:AIRE guidance Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination (Ref 4A.11) to

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	understand potential impacts on controlled waters (where it has not been possible to avoid through design). Where required, this would include suitable mitigation measures to minimise potential effects.
GH03	Use of appropriate occupational health and safety measures, e.g. Personal Protective Equipment, and statutory health and safety compliance (e.g. compliance with the Confined Spaces Regulations, 1997 (Ref 4A.12) in relation to ground gas from working in confined spaces/trenches) to minimise the risks associated with anticipated/unexpected contamination. This would be based on risk assessments informed by site-specific information.
GH04	Use and storage of chemicals would be undertaken in accordance with the Defra and Environment Agency Guidance: Pollution Prevention for Business (Ref 4A.13).
GH05	The control of earthworks or materials movement (including any re-use of materials) would be undertaken under appropriate Environmental Permits, exemptions or CL:AIRE DoWCoP (Ref 4A.3), SMP and MMP.
GH06	Any temporary dewatering activities or abstraction from watercourses during construction would be undertaken in accordance with relevant Environment Agency guidance, and if required, an Abstraction Licence and Environmental Permit (for the discharge) and would be limited to the depth and time required to facilitate construction activities.
GH07	Establishment of a protocol, including measures to prevent mobilisation, in the event of any unexpected contamination being discovered during the construction phase.
GH08	Engagement and confirmation with the local authority and the Mining Remediation Authority, if appropriate, prior to construction to ensure minimal mineral sterilisation.
GH09	An Emergency Response Plan would be developed for the construction phase which would outline procedures to be implemented in case of unplanned events such as accidental spillages or leaks.
Agriculture and Soils	
AS01	A SMP would be developed to set out soil mitigation measures to protect soil resources and agricultural land during the stages of preconstruction, construction, and post construction. The Outline SMP would include but is not limited to: • details of the soil resources present; • how topsoil and subsoil would be stripped and stockpiled based on their specific characteristics; • suitable conditions for when handling soil would be undertaken and climatic stop conditions;

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	• principles to determine suitable soil storage locations; • how soil stockpiles would be designed taking into consideration site conditions and the nature/composition of the soil; • specific measures for managing sensitive soils; • suitable protective measures (such as trackways) where soil stripping can be avoided, based on sensitivity of the environment and proposed works; and • approach to reinstating soil that has been compacted, where required.
AS02	Where land is being returned to agricultural use, the appropriate soil conditions (for example through the replacement of stripped layers and the removal of any compaction) would be recreated. This would be achieved up to a depth of 1.2 m (or the maximum natural soil depth if this is shallower). Any agreements to restore land to a condition as discussed with the landowner would be fully recorded, prior to soil disturbance.
AS03	Where practicable and safe to do so, existing access to and from residential, commercial, community and agricultural land uses would be maintained throughout the construction period or as agreed through the landowner discussions. This may require signed diversions or temporary restrictions to access. The means of access to affected properties, facilities and land parcels would be communicated to affected parties at the start of the Project/at the start of the relevant works, with any changes communicated in advance of the change being implemented. Where existing field-to-field access points require alteration because of construction, alternative field access would be provided (if required) in consultation with the landowner/occupier.
AS04	Existing water supplies for livestock that have been notified to the Project by the landowner before construction starts would be maintained or alternatives put in place in advance of any disturbance. Where supplies would be lost or access compromised by construction works, temporary alternative supplies would be provided where necessary. Water supplies would be reinstated following construction, where practicable.
AS05	Should animal bones be discovered during construction, which may indicate a potential burial site (relating to mass graves of cloven-hooved animals or birds as result of disease/disease spread prevention), works would cease in isolated areas of the finds, and advice would be sought from the Animal Health Regional Office on how to proceed, relevant to the origin and age of the materials found.
AS06	In the event of a notification by Defra of a disease outbreak in the vicinity of the site that requires the cessation of activities, all movement of plant and vehicles between fields would cease. Advice would be sought from Defra to develop suitable working methods required to reduce the biosecurity risk associated with the continuation of works.

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AS07	Should peat deposits or peaty soils be identified, impacts to these areas would be avoided, where practicable, in line with the requirements of other disciplines and engineering constraints. A provision for this would also be included in the SMP.
Traffic and Transport	
TT01	Traffic and transport construction phase mitigation will be set out in an Outline CTMP and Outline PRoWMP submitted with the DCO application; these will be finalised prior to construction start. Consultation will be undertaken with relevant stakeholders regarding specific mitigation measures. The Outline CTMP will identify mitigation measures which will include designated Heavy Duty Vehicles construction routes, the use of haul roads from dedicated or existing easements, suitable highways signage, implementation of temporary traffic controls and restrictions, and a construction staff travel plan. Mitigation measures would result in minimised disruption to existing users of the transport network and land uses surrounding the Local Road Network (LRN). Both management plans will be secured by DCO requirement.
TT02	Crossing schedules would be developed for the overhead line and access works including for roads, railway lines, Public Rights of Way (PRoWs) and watercourse crossings.
Air Quality	
AQ01	Site management procedures would include the logging of air quality incidents/complaints which would be made available to the relevant local authority when required.
AQ02	Regular liaison meetings would be held with other high risk construction sites within proximity of the construction work, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. This would include coordination of off-site transport/deliveries which might be using the same Strategic Road Network routes. This will be assessed as part of the cumulative effects assessment in the ES.
AQ03	Regular site inspections would be conducted to monitor compliance with the Dust Management Plan with the inspection findings and associated action recorded and tracked. The frequency of site inspections by the person accountable for air quality and dust issues on-site would be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
AQ04	The site layout would be planned to ensure that machinery and dust causing activities are located away from receptors, as far as is possible.

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AQ05	The site and specific operations that give rise to dust would be managed appropriately through Project risk assessments where there is a high potential for dust production and the site is active for an extensive period.
AQ06	Site fencing, barriers and scaffolding would be monitored for dust build up and appropriate action taken if required, for instance kept clean using water.
AQ07	Materials that have a potential to produce dust would be removed from site as soon as possible, unless they are being re-used on-site. In this case they would be managed appropriately to minimise any adverse effects.
AQ08	Plant and machinery used would meet the latest emission standards set out in Regulation (EU) 2016/1628 (as amended) (Ref 4A.14) where achievable. Construction vehicles would meet Euro VI emissions standards which reduce NOX and PM10 emissions. Vehicles/machinery would be properly operated and maintained.
AQ09	When it is safe to do so, vehicles and plant would switch off engines when stationary and not in use – no idling vehicles and plant.
AQ10	The use of diesel and petrol-powered machinery and generators would be reviewed and avoided where practicable and mains electricity or battery powered equipment used where practicable. Opportunities to use mains electricity, battery, solar and/or hydrotreated vegetable oil powered equipment would be considered.
AQ11	To limit any adverse effects of dust whilst travelling along the route, suitable speed limits would be imposed along the route in line with environmental guidance and Project risk assessments.
AQ12	A Construction Traffic Management Plan (CTMP) would be produced, which would include measures to manage the sustainable delivery of goods and reduce construction traffic movement. An Outline CTMP will be produced as part of the ES.
AQ13	An adequate water supply would be maintained on-site to ensure there is sufficient supply for effective suppression/mitigation. The use of non-potable water would be considered where possible and appropriate in line with health, safety and environmental considerations.
AQ14	Dust suppression measures would be employed in both demolition and construction activities (Ref 4A.15), e.g. when using cutting, grinding or sawing equipment, including the use of enclosed chutes, reduced drop heights and water suppression systems, e.g. handheld sprays.
AQ15	Soft stripping of building interiors would be undertaken before demolition.

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AQ16	Where surface cover would be removed appropriate measures will be explored, where necessary, in liaison with the landowner.
AQ17	Construction activities would avoid scabbling (roughening) of surfaces where reasonably practicable.
AQ18	Aggregates would be kept damp where practicable. Fine powder materials would be delivered in enclosed tankers, stored in silos and not overfilled. Small supplies would be transferred into bags which would be stored appropriately and sealed after use.
AQ19	Trackout (dirt, mud, and construction debris carried onto public areas) measures would be implemented. Wheel washing facilities would be provided where required at compound access points on to the highway. Vehicles shall be kept covered when carrying materials with the potential to cause dust. Access points and the LRN used by the Project, would be managed appropriately to minimise trackout.
AQ20	Access gates would be located at suitable distance from receptors where possible. Appropriate measures would be provided at access points on to the highway to mitigate the effects of mud on the roads. Cleaning would be deployed to prevent excessive dust or mud deposits. Dry sweeping of large areas would be avoided.
AQ21	Haul routes would be regularly inspected and repairs instigated. The findings and subsequent actions would be recorded.
AQ22	Re-routeing of construction traffic, if feasible, would be planned to avoid sensitive receptors should a significant air quality impact be predicted and/or experienced.
AQ23	Where possible, on-site emissions to air would be minimised by using prefabricated modular components manufactured off-site.
Noise and Vibration	
NV01	Construction works would be carried out during core working hours (as set out in CoCP(s)), where practicable.
NV02	BS 5228-1 (Ref 4A.16) and BS 5228-2 (Ref 4A.17) set out good construction practices to control noise and vibration respectively, which would be adopted, where practicable.
NV03	Best Practicable Means (BPM) (as defined in section 72 of the Control of Pollution Act 1974 (Ref 4A.18)), would be used to control construction noise and vibration and would consider the following general principles: • control at source, including measures such as the use of modern, low noise equipment; equipment noise control measures such as the use of mufflers/silencers and regular maintenance to ensure integrated noise control measures are in good

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	working order; construction methods which use quieter equipment; considerate use of equipment (e.g. powering down when not in use); and • control of the spread of noise across the site, including the use of acoustic screens/enclosures, siting noisy equipment further from Noise Sensitive Receptors (NSRs), the use of site cabins to screen noise.
NV04	During commissioning of the Project, noise monitoring will be carried out at a selection of locations. The monitoring will be used to identify whether noise levels are higher than predicted and, should this be the case, to identify mitigation to reduce noise levels as far as reasonably practicable.
NV05	The Main Works Contractor will develop a Construction Noise and Vibration Management Plan (CNVMP) which shall be secured by DCO Requirement and submitted to the relevant local authority for approval before works start. The CNVMP will include modelling and assessment of construction noise and vibration. The results of the modelling will be used to identify where significant effects are predicted to occur.
NV06	The CNVMP will identify site-specific details of the mitigation and management measures that will be implemented to mitigate and minimise (using BPM) effects above the Lowest Observed Adverse Effect Level (LOAEL) and to avoid significant adverse effects on health and quality of life (i.e. effects above the Significant Observed Adverse Effect Level or SOAEL), as defined in the ES.
NV07	During the construction of the Project, temporary access routes would be required, to deliver and remove materials and to enable access to the proposed route alignment. A CTMP would be produced which would require that, as far as practicable, these access routes be located away from NSRs and Vibration Sensitive Receptors, thereby minimising potential noise and vibration effects during both the construction and during the use of these routes during the construction phase.
Socio-economics, Recreation and Tourism	
SO01	Access to businesses, recreation and tourism assets would be maintained, where practicable, along their current alignments during construction. Alternative access would be provided if access would be inhibited during construction.
SO02	PRoWs crossing the working areas would be discussed with the relevant local authority PRoW officers. Disruption to access would be minimised where practicable during construction. A Public Rights of Way Management Plan would be prepared to outline the environmental measures required to be implemented to mitigate potential effects. Temporary diversions would be provided where possible, with clear signage to be provided at both ends to explain the diversion, duration of the diversion and a contact number for any concerns.

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SO03	A CTMP would be prepared which would include commitments (where applicable) to reduce route impacts and journey mileage to, from and around the construction sites and manage access for neighbouring business and the wider community. The Main Works Contractor will develop a Construction Noise and Vibration Management Plan (CNVMP) which shall be secured by DCO Requirement and submitted to the relevant local authority for approval before works start.
Health and Wellbeing	
HW01	The Project will provide open and transparent information about electric and magnetic fields (EMFs) through the National Grid Energy Transmission (NGET) website (www.emfs.info), which is linked from all National Grid project websites for public to access.
HW02	NGET also operate a helpline on EMFs to answer any questions on this subject. This and the website are aimed at providing information on EMFs to help reduce anxiety or concern around EMFs.
Climate Change Resilience	
CC01	The Main Works Contractor would consider all measures deemed necessary and appropriate to manage extreme and severe weather events. Measures would include, for example: • Suitable briefing of personnel on the mitigation and monitoring arrangements to manage severe weather events. • As appropriate, construction method statements should also consider severe weather events where risks have been identified. • Health and safety plans to prevent worker exhaustion due to heat. Supportive measures for working in high temperatures might include the provision of sunblock, Personal Protective Equipment and lightweight clothing, refreshment breaks and cooled water supply. • Health and safety plans for workers working in low temperatures. These may include providing insulated, waterproof gear, warm clothing, regular breaks away from low temperatures, continuous monitoring of weather conditions, and briefings on the signs of hypothermia, frostbite, and other related risks. • Temporary compound buildings designed with measures to cool summertime overheating. • Safety measures to mitigate against issues caused by high winds such as increased dust or damage to structures/construction plant.

Ref ID	Control and Management Measures
CC02	A suitable process and evacuation procedures for construction workers in case of wildfire should be implemented alongside fire safety measures such as clearance of vegetation around temporary structures (where appropriate) and access to fire extinguishing equipment.
CC03	The Main Works Contractor would use a short to medium range weather forecasting service from the Met Office, or other approved meteorological data and weather forecast provider, to inform short to medium term programme management, environmental control and impact mitigation measures, e.g. health and safety plans to include supportive measures for working in extreme high or low temperatures. The Main Works Contractor's Environmental Management System would consider all measures deemed necessary and appropriate to manage severe weather events and should as a minimum cover briefing of personnel and prevention and monitoring arrangements to manage severe weather events. As appropriate, construction method statements should also consider severe weather events where risks have been identified.

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