WHITESTONE SOLAR FARM

Volume 6: Environmental Statement

6.20 Appendix 2.3: Commitments Register

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Glossary

Term	Meaning
Cable Corridors	Corridors within which the high voltage cables would be constructed.
EIA	A process, undertaken by the Applicant, of identifying and assessing the significant effects likely to arise from a project.
Environmental Statement (ES)	The Environmental Statement which presents the environmental information relating to the Proposed Development. The ES has been prepared to present information for formal consultation in accordance with current EIA regulation.
Scoping Opinion	The opinion in response from the relevant consenting authority to an EIA Scoping Report adopted by the Secretary of State on 3 June 2025 which sets out the aspects to be assessed within an EIA. Informed by consultation with relevant statutory bodies.
Study Area	The spatial extent within which environmental receptors may experience likely significant effects from the Proposed Development.
The Applicant	Whitestone Net Zero Ltd.
The Application	The Application submitted to the Secretary of State for Energy Security and Net Zero for a Development Consent Order.
The Proposed Development	The proposed Whitestone Solar Farm.
The Site	The land planned to be used for solar PV array and associated infrastructure, BESS, substations, and landscaping and habitat enhancement. The Site is split into W1, W2, and W3.
Whitestone 1	The northern parcels of the Whitestone Solar Farm.
Whitestone 2	The middle parcels of the Whitestone Solar Farm.
Whitestone 3	The southern parcels of the Whitestone Solar Farm.

Acronyms

Acronym	Meaning
AIPS	Archaeological Investigation and Preservation Strategy
ALV	Abnormal Loads Vehicle
BESS	Battery Energy Storage System
BNG	Biodiversity Net Gain
BSMP	Battery Safety Management Plan

Acronym	Meaning
CEMP	Construction Environmental Management Plan
COSHH	Control of Substances Hazardous to Health
CRT	Canal and Rivers Trust
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DEFRA	Department for Environment, Food and Rural Affairs
DEMP	Decommissioning Environmental Management Plan
DMP	Dust Management Plan
DMRB	Design Manual for Roads and Bridges
DMS	Delivery Management System
DoW: CoP	Definition of Waste Code of Practice
EA	Environment Agency
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMF	Electromagnetic Field
EMMP	Excavate Materials Management Plan
EMS	Environmental Management System
ES	Environmental Statement
GHG	Greenhouse Gas
HAS	Heightened Archaeological Sensitivity
HGV	Heavy Goods Vehicles
HRA	Hazard and Risk Analysis
IAQM	Institute of Air Quality Management
INNS	Invasive Non-Native Species
JHA	Job Hazard Analysis
LEMP	Landscape and Ecology Management Plan
LLFA	Lead Local Flood Authority
LPA	Local Planning Authority
MMP	Materials Management Plan
MRA	Mining Remediation Authority
oBSMP	Outline Battery Safety Management Plan
oCEMP	Outline Construction Environmental Management Plan
oCTMP	Outline Construction Traffic Management Plan
oDEMP	Outline Decommissioning Environmental Management Plan
oDMP	Outline Dust Management Plan
oEMMP	Outline Excavated Materials Management Plan
oIRP	Outline Incident Response Plan

Acronym	Meaning
oLEMP	Outline Landscape and Ecological Management Plan
OEMP	Operational Environmental Management Plan
oOEMP	Outline Operational Environmental Management Plan
oPRoWMP	Outline Public Rights of Way Management Plan
oSMP	Outline Soil Management Plan
oSWDS	Outline Surface Water Drainage Strategy
oSWMP	Outline Site Waste Management Plan
oWSI	Outline Written Scheme of Investigation
PPE	Personal Protective Equipment
PPG	Pollution Prevention Guidance
PRoW	Public Rights of Way
PRoWMP	Public Rights of Way Management Plan
PV	Photovoltaic
SMP	Soil Management Plan
SuDS	Sustainable Drainage Strategies
SWDS	Surface Water Drainage Strategy
SWMP	Site Waste Management Plan
TMMS	Traffic Management and Monitoring System
UXO	Unexploded Ordnance
WSI	Written Scheme of Investigation

Units

Units	Meaning
dB	Decibel
Ha	Hectare
kV	Kilovolt
m	Metre
MW	Megawatt

2.3 Commitments Register

Introduction

Overview

2.3.1 The Proposed Development will mitigate adverse environmental impact as far as practicable with the application of the mitigation hierarchy. The design and mitigation measures have been defined through the Environmental Impact Assessment (EIA) process, informed by consultation and technical assessment. The Environmental Statement (ES) therefore sets out the mitigation measures that will be implemented to reduce identified adverse effects as far as practicable.

2.3.2 As outlined in **ES Volume 1, Chapter 5: the Proposed Development [EN0110020/APP/6.5]**, the Rochdale Envelope approach has been employed to accommodate flexibility in the Proposed Development's design. The approach allows the integration of mitigation measures early in the design process whilst providing adaptability to enable consultation to positively influence the Proposed Development.

2.3.3 This Commitments Register outlines the measures which will be implemented in so far as the design evolution of the Proposed Development allows. This is to provide an overview to stakeholders of how the Proposed Development will adhere to the principles of best practice and good design in accordance with the mitigation hierarchy.

2.3.4 All mitigation will be secured under the Development Consent Order (DCO), meaning that the obligation to deliver and implement the mitigation measures that are proposed will be legally enforceable under the Planning Act 2008. The relevant securing mechanisms are varied however the Applicant envisions that embedded mitigation related to design features and siting of infrastructure would be secured via requirements in the DCO to construct the Proposed Development in accordance with certified plans and parameters.

2.3.5 The ES includes an Illustrative Masterplan and Illustrative Mitigation Masterplan (**ES Volume 3, Figure 5.1: Illustrative Masterplan [EN0110020/APP/6.19] and outline Landscape and Ecology Management Plan Appendix A: Illustrative Mitigation Masterplan [EN0110020/APP/5.13]**, respectively) which dictate the Proposed Development's siting of infrastructure, maximum parameters and proposals for landscaping and mitigation.

2.3.6 Furthermore, various management plans will implement the mitigation proposed and the commencement of construction will be conditional upon the relevant Local Planning Authorities (LPAs) or relevant local drainage Authorities approving these management plans. These management plans will be required to be developed substantially in accordance with a corresponding "outline" version of that plan, the outline plans include a mixture of high-level principles which will inform the practices and measures which will be included in the final plans as well as more prescriptive commitments.

Outline Management Plans

2.3.7 An **outline Construction Environmental Management Plan (oCEMP) [EN0110020/APP/5.9]** has been submitted with the Application and sets out the

secured construction phase mitigation measures that will be implemented through the detailed Construction Environmental Management Plan (CEMP). The **oCEMP [EN0110020/APP/5.9]** establishes the overarching framework, controls and commitments that will govern construction activities and ensure that environmental effects are avoided, reduced or appropriately managed.

2.3.8 The **oCEMP [EN0110020/APP/5.9]** includes confirmed mitigation measures and embedded controls covering, as a minimum:

- The protection of ecological receptors, including legally protected and priority species (such as bats, great crested newts, otter, water vole, reptiles, breeding birds, badgers and other mammals), delivered through defined working methods, timing restrictions, exclusion zones, pre-construction checks, toolbox talks and supervision by a suitably qualified Ecological Clerk of Works (ECoW);
- Measures to control construction lighting, including restrictions on timing, location and design to minimise disturbance to nocturnal and crepuscular species;
- Biosecurity controls and procedures to prevent the introduction or spread of invasive non-native species (INNS);
- Construction controls to protect retained habitats, trees and vegetation, including the use of Root Protection Areas, protective fencing, controlled vegetation clearance and reinstatement;
- Soil, land quality and agricultural land protection measures, secured through an Outline Soil Management Plan (oSMP) included within the **oCEMP [EN0110020/APP/5.9]**, covering soil stripping, handling, storage, reinstatement, prevention of compaction and procedures for managing unexpected ground conditions or contamination;
- The environmentally responsible management of excavated materials, secured through an Outline Excavated Materials Management Plan (oEMMP) included within the **oCEMP [EN0110020/APP/5.9]**, covering classification, segregation, reuse and, where necessary, disposal of materials;
- Pollution prevention and control measures to protect soils, groundwater and surface waters, including defined watercourse buffers, best-practice watercourse crossing methods, sediment and runoff control, bunded storage, spill prevention and response procedures, and concrete management controls;
- Construction-phase surface water and drainage measures, incorporating Sustainable Drainage System (SuDS) principles to manage runoff and reduce flood risk;
- Dust and air quality management measures, secured through an Outline Dust Management Plan (oDMP) included within the **oCEMP [EN0110020/APP/5.9]**, covering mitigation, monitoring and complaint response procedures;
- Construction and decommissioning waste management measures, secured through an Outline Site Waste Management Plan (oSWMP) included within the **oCEMP [EN0110020/APP/5.9]**, applying the waste hierarchy and setting out roles, responsibilities, monitoring and record-keeping requirements; and
- Environmental incident prevention, preparedness and response procedures, secured through an Outline Incident Response Plan (oIRP) included within the **oCEMP [EN0110020/APP/5.9]**.

2.3.9 The **oCEMP [EN0110020/APP/5.9]** also defines roles and responsibilities for environmental management during construction, alongside monitoring, inspection,

reporting and compliance procedures to demonstrate adherence to the ES commitments and the DCO.

2.3.10 Construction traffic, access management and Public Rights of Way management are secured separately through the **outline Construction Traffic Management Plan (oCTMP) [EN0110020/APP/5.12]** and **outline Public Rights of Way Management Plan (oPRoWMP) [EN0110020/APP/5.14]**, with the **oCEMP [EN0110020/APP/5.9]** providing coordination and oversight to ensure that these measures are implemented consistently alongside wider environmental controls.

2.3.11 The **oCTMP [EN0110020/APP/5.12]** sets out the measures that will be implemented to manage construction traffic. These measures include:

- As far as reasonably practicable, scheduling deliveries outside of school opening and closing times, with drivers informed through site induction of the presence of schools within settlements along the construction delivery routes;
- The application of construction traffic speed limits, including the consideration of reduced speeds (for example, 20 mph within 30 mph zones) through sensitive locations along delivery routes and on approach to the main Site access points;
- A requirement for heavy goods vehicles (HGVs) to follow the approved construction routes to the Site, with measures to encourage efficient vehicle use, such as back-loading, where practicable, and the use of banksmen and/or controlled convoy systems on single-track roads and near access points where necessary to maintain safety;
- The provision of temporary construction traffic signage along identified delivery routes and at access points to warn other road users of construction activity and to protect the safety of all users, including non-motorised users, through appropriate signage and the maintenance of sight lines;
- The provision of appropriate parking facilities within construction compounds, with no HGVs permitted to lay up on surrounding public roads;
- Advance notification to local residents and Community Councils of the timing of Abnormal Loads Vehicle (ALV) deliveries and periods of elevated construction traffic, where practicable;
- Management of construction material lay-down areas to enable staggered delivery schedules, avoiding convoy arrivals and peak or unsociable hours where practicable;
- The appointment of a Site Liaison Officer responsible for coordinating construction vehicle movements and ensuring delivery timings do not conflict with planned works on the surrounding road network;
- Implementation of a construction staff travel plan to encourage travel modes that reduce reliance on single-occupancy private car use;
- Requirements for all HGVs transporting fine or loose materials to be sheeted to prevent dust emissions and spillage onto the highway; and
- Arrangements for regular road inspection, maintenance and cleaning, including road sweeping near Site access points and wheel-washing facilities for vehicles leaving the Site.

2.3.12 An **outline Written Scheme of Investigation (oWSI) [EN0110020/APP/5.16]** has been prepared and submitted with the Application to set out the framework for archaeological investigation and mitigation in relation to construction and excavation works, including along the Cable Corridor. The **oWSI [EN0110020/APP/5.16]** establishes the approach for identifying, evaluating and mitigating impacts on known and potential buried archaeological remains and cultural heritage assets.

2.3.13 The detailed Written Scheme of Investigation (WSI) will be consulted upon with the relevant stakeholders following post-consent determination and will be substantially in accordance with the submitted **oWSI [EN0110020/APP/5.16]**, ensuring that appropriate archaeological mitigation measures are implemented prior to and during construction, as required.

2.3.14 Operational impacts will be managed through adherence to the **outline Operational Environmental Management Plan (oOEMP) [EN0110020/APP/5.10]**, which has been prepared and submitted with the Application and sets out the framework for managing operational-phase environmental effects.

2.3.15 The **oOEMP [EN0110020/APP/5.10]** establishes the mitigation measures and controls that will be implemented to manage a range of potential operational impacts, including (but not limited to) those relating to operational traffic, ecology, landscape, air quality and ground conditions. Measures relating to land quality and soils during the operational phase of the Proposed Development will also be implemented through the Soil Management Plan, in accordance with the framework established by the **oOEMP [EN0110020/APP/5.10]**.

2.3.16 An **outline Landscape and Ecology Management Plan (oLEMP) [EN0110020/APP/5.13]** has been prepared and is submitted with the Application. The **oLEMP [EN0110020/APP/5.13]** sets out the framework for the implementation, management and maintenance of landscape and biodiversity mitigation measures, including those required to deliver biodiversity net gain (BNG).

2.3.17 The decommissioning phase of the Proposed Development will be undertaken in accordance with an **outline Decommissioning Environmental Management Plan (oDEMP) [EN0110020/APP/5.12]**, which has been prepared and submitted with the Application. The **oDEMP [EN0110020/APP/5.12]** establishes the overarching framework for managing environmental effects arising from the dismantling and removal of the Proposed Development, with the aim of avoiding, minimising or appropriately managing potential impacts during decommissioning.

2.3.18 The **oDEMP [EN0110020/APP/5.12]** sets out the principles, controls and mitigation measures that will apply during the decommissioning phase and will be developed into a detailed Decommissioning Environmental Management Plan (DEMP) prior to commencement of decommissioning, in accordance with the requirements of the **Draft DCO [EN0110020/APP/3.1]**.

2.3.19 Measures relating to soil management, traffic management and water consumption during decommissioning will also be implemented through the relevant management plans, as set out within the **oDEMP [EN0110020/APP/5.12]**. These measures will ensure that, subject to landowner agreement and any infrastructure intended to remain in situ, land disturbed during decommissioning is appropriately reinstated and returned to an agreed post-development condition.

Environmental Commitments

2.3.20 **Table 2.3-1** lists the environmental mitigation measures that will be adopted during the construction, operation and maintenance and decommissioning phases of the Proposed Development.

2.3.21 Where relevant, cross-references are provided to the mechanism through which these commitments will be secured.

2.3.22 This Appendix should be read in conjunction with the full text in the chapters in **Volume 1** and **Volume 2** of the ES.

2.3.23 Where monitoring is an intrinsic part of the commitment, the text is not repeated in the monitoring column.

Table 2.3-1 Commitments Register

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.5)	Protection of Terrestrial and Freshwater Habitats from Pollution	A CEMP and Construction Traffic Management Plan (CTMP) will be implemented during construction of the Proposed Development. The CEMP and CTMP will secure mitigation measures for the protection of existing habitat, including: • Dust suppression measures (such as wetting down of tracks and vehicle wheels, and speed restrictions); • Pollution prevention measures, including the safe storage and handling of equipment, fuels, oils and chemicals; and • Lighting and noise controls to minimise disturbance to fauna and habitats.	N/A	Construction	CEMP CTMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.6)	Protection of Terrestrial and Freshwater Species	The Proposed Development will be constructed and operated in accordance with the approved plans and parameters which secure the siting of Battery Energy Storage System (BESS) and Substation infrastructure within existing habitats of negligible and low value and will not permit the siting of permanent infrastructure within habitats of medium or higher ecological value. The siting of infrastructure within habitats of lower value will minimise permanent habitat loss and supports delivery of statutory biodiversity net gain.	N/A	Construction	Works Plans [EN0110020/APP/2.3].
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.7, 6.6.8, 6.6.9)		Where available, existing farm track infrastructure and public highways will be utilised, and new tracks to enable the build out of the Proposed Development seek to traverse habitats of negligible and low value where possible. Transport routes that have been selected based on existing bridge specifications sufficient to allow construction traffic to pass without the need for upgrades to public highway bridges. The application of protective buffers around habitats from the developed areas within the Order Limits to prevent adverse effects on habitat function and quality. These will include: • Ancient and semi-natural woodland - a buffer zone of at least 15 times larger than the diameter of each tree in an ancient or broadleaved woodland edge boundary to avoid root damage (known as the root protection area); • Ancient/veteran trees, a minimum buffer zone of at least 15 times larger than the diameter of each tree in an ancient or broadleaved woodland edge or per individual ancient or veteran tree. The buffer zone should be 5 metres from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter; • Watercourses – a horizontal buffer of 10m from the top of each bank for rivers, streams and canals and 5m from the top of the bank for ditches. This aligns with Natural England guidelines in the Statutory Metric to maintain the ecological function and habitat quality of priority watercourses[1]. Where trenchless crossings are proposed for Cable Crossing of watercourses, a depth of at least 1.5m beneath the watercourse is proposed; • The Proposed Development will maintain a minimum 10m protective buffer from ponds, and 5m from the edge of hedgerows (beyond the 2m mandated in legislation for the management of hedgerows); and • These buffer zones are to protect the habitat itself. Buffers will need to be reviewed where protected species are present, in line with species-specific guidance.	N/A	Construction	

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.10-6.6.12)	Avoiding fragmentation of habitats	Existing crossings, tracks, access points, field entrances will be used to limit the fragmentation of the existing habitats on-site, where reasonably practicable. Wherever watercourse crossings (for access tracks) are proposed and migratory species or commuting species are known to be present, crossings will be designed, such that species are not restricted in their range through these habitats. The design of the crossings will incorporate specifications detailed within the Design Manual for Roads and Bridges (DMRB) documents to allow species full range for migrating, commuting, and foraging. Gapping up of hedgerows and strengthening of existing habitat connectivity is proposed through new habitat creation (e.g. the creation of open grassland areas between sensitive habitats, new connecting hedgerows, and the creation of rides etc.)	N/A	Construction	Works Plans [EN0110020/APP/2.3]. LEMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.13)	Protection of Terrestrial and Freshwater Habitats from Pollution	Construction phase pollution prevention and control measures to protect terrestrial and freshwater habitats will be implemented via the CEMP, in accordance with the **oCEMP [EN0110020/APP/5.9]**. These measures include, not limited to: • Safe storage and handling of plant, fuel, oils and chemicals to remove pollution pathways to surface water and groundwater; • Dust suppression measures, including washing down of vehicle wheels and access tracks; • Speed reduction measures on-site to limit dust generation and emissions; and • Technical information on the removal of pathways to watercourses and groundwater.	N/A	Construction	CEMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.14)	Retention of Terrestrial habitats to avoid losses	Measures at the construction phase that are proposed for addressing and minimising habitat loss and control measures in terrestrial habitats, include but not limited to: • Lifting, temporarily storing, and then reinstating grassland habitat to avoid grassland habitat loss after cable laying and after temporary vehicle access points are removed.	N/A	Construction	CEMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.15)	Reducing noise and vibration during construction	Measures that directly benefit Biodiversity and Nature Conservation will be delivered through the CEMP and CTMP, and will include, but are not limited to: • Use of lowest rated suitable equipment where practicable; • Restriction on timings of equipment use to daytime hours unless in exceptional circumstances which would be short term in duration; • Use of acoustic barriers or screens near sensitive receptors (human and biodiversity) where necessary; and • Maintaining sufficient depth (1.5m) below watercourses and wet ditches, where possible, such that vibration in the water column is avoided during trenchless crossing activities.	N/A	Construction	CEMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.16, 6.6.17)	Reducing the Temporary Impacts of Lighting on Sensitive Ecological Features	Lighting will be restricted during crepuscular and nocturnal hours where reasonably practicable, with the majority of works activities to take place between the hours of 0700hrs and 1900hrs Monday to Friday, and 0700 hrs to 1300hrs on Saturdays. Exceptions to this may be required for trenchless crossings or for time sensitive construction activities such as concrete pouring.	N/A	Construction	CEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			Temporary security and compound lighting would be restricted to the use of motion sensitive or low impact lighting, which would include a shroud or shield to direct lighting only to where it is needed. Lighting would follow industry guidelines, with hoods or other features round the lighting to direct lighting away from sensitive features such as habitats that support crepuscular or nocturnal species.			
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.18-20)	Controlling the Spread of Terrestrial Invasive Non-Native Species (INNS)	The CEMP will identify potential vectors for the spread of INNS, including but not limited to the movement of plant and machinery, personnel access, and the storage and movement of materials. The measures taken would involve but not be limited to: • The creation and provision of a Method Statement to be followed by contractors with respect to INNS and the provision of a contractor briefing for construction staff prior to construction works taking place; • A process for reporting the potential presence of INNS by contractors, the identification of, and cordoning off areas with INNS present by an Ecological Clerk of Works (ECoW) where works are to be avoided; and • The visual inspection of footwear and wheel washing to remove INNS seeds and to avoid spreading botanical species between different areas of the Site.	N/A	Construction	CEMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.21)	Protection of Terrestrial and Freshwater Species	Construction phase ecological protection and pollution prevention measures will be implemented through the approved CEMP. This will include measures relating to: • Measures to ensure protected species found within watercourse habitat are avoided, include the application of horizontal and vertical protective buffer distances during construction; • Safe storage of plant, fuel, oils, and chemicals to remove pathways for pollution to enter surface or groundwater habitats and impact species; • Technical information on the removal of pathways to watercourses and groundwater; • Speed reduction measures on-site to reduce emissions, dust loading and noise, where there is the potential to impact sensitive botanical and faunal features; • Any excavations to be filled and not left overnight, or where this is not possible, to be covered, or escape ramps for mammals included if left open overnight; • Provision of gaps or holes in the perimeter fence line to allow badgers and other mammals free movement within their range; • No stockpiling of aggregate piles or materials other than on hard standing area; • Ensure habitats that contain protected species are suitably fenced and separated from on-site works and personnel; and	N/A	Construction	CEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			• A contractor briefing will be delivered by a suitably experienced ECoW to make contractors aware of protected and priority species and relevant legislation.			
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.22-65)	Protection of protected species	Mitigation measures for the protection of relevant protected species will be secured and implemented, where required, through the CEMP, in accordance with the **oCEMP [EN0110020/APP/5.9]**, and through the approved Landscape and Ecology Management Plan (LEMP). These measures will be informed by the assessment and mitigation set out in **ES Volume 2, Chapter 6: Biodiversity and Nature Conservation [EN0110020/APP/6.6]**, and will include specific mitigation, working methods for designated sites, ancient woodland, ancient/veteran trees, native hedgerows, wet woodland, arable field margins and protected species (bats, great crested newts, otter and water vole, reptiles, white clawed crayfish, migratory fish, badgers, nesting birds and brown hare).	N/A	Construction	CEMP LEMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.66)	Impacts from operational lighting	Lighting is not required within the solar arrays. However, it would be installed in the primary and satellite substation compounds and the BESS location(s) and would be used only as needed for maintenance and security purposes. All lighting would be either controlled by PIR sensors or manually operated and would be directed into the compounds, avoiding hedgerows, tree lines, woodland blocks, watercourses, ponds, and other areas to minimise impact on nocturnal or crepuscular fauna and potential sensitive residential receptors where possible.	N/A	Operation	CEMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.75-83)	Biodiversity Net Gain (BNG)	The Proposed Development will deliver BNG in accordance with Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021) which requires developments to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of the on-site habitat (i.e. all habitats within the boundary of the development). The delivery, long term management, monitoring and reporting of BNG will be secured through a LEMP.	Monitoring of new habitats will occur within the first 5 years to ensure plant health, with corrective actions as needed. Condition Assessment Monitoring is required to confirm compliance with statutory BNG gain and habitat value achievement.	Operation	LEMP
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.67-74)	Maintaining habitat connectivity	Measures to maintain habitat connectivity during operation will be implemented through the LEMP. These include the provision of mammal access gates within perimeter fencing and the design of watercourse crossings to facilitate the movement of species such as otter, where present, in accordance with the DMRB where applicable[2].	N/A	Operation	LEMP Works Plans [EN0110020/APP/2.3].
Chapter 6: Biodiversity and Nature Conservation	Section 6.6 (6.6.84-87)	Decommissioning impacts on habitats and species	The decommissioning phase of the Proposed Development is assumed to require similar mitigation measures to the construction phase, given much of the decommissioning would involve the removal of the Proposed Development infrastructure. Mitigation measures will be included within a DEMP.	N/A	Decommissioning	DEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			The legislative framework for the protection of habitats, designations, flora and fauna may also change, with some of these biodiversity features either having enhanced new protections, or the removal of the current protective status at the time of decommissioning. It is assumed however, that basic protection measures for fauna would remain in place at the time of decommissioning to safeguard species as required.			
Chapter 7: Landscape and visual	Section 7.6 (7.6.22)	Impact of the Proposed Development on landscape character and visual amenity during construction	Construction-phase landscape and visual mitigation will be implemented via the CEMP, in accordance with the **oCEMP [EN0110020/APP/5.9]**. Measures to minimise temporary landscape and visual effects during construction, including: • Minimising of lighting during construction, specific to task and concentrated on the work area to avoid overspill to adjacent areas; • Protection of vegetation to be retained through appropriate Root Protection Areas and fencing; • Minimising vegetation removal to the minimum required for access and construction; • Ground protection measures to reduce compaction of the soil during construction; • Layout and design of haul roads and construction compounds have been set out to reduce loss of physical landscape features and minimum offsets to sensitive designations; • Hoarding to be present around construction compounds and construction laydown areas to reduce clutter of materials in views; and • Construction compounds and laydown areas to be located away from sensitive receptors where possible.	N/A	Construction	CEMP
Chapter 7: Landscape and Visual	Section 7.6 (7.6.8, 7.6.18, 7.6.19)	Impact of the Proposed Development on landscape character and visual amenity during operation	Landscape mitigation and enhancement during operation will be implemented and managed via the LEMP, in accordance with the **oLEMP [EN0110020/APP/5.13]**. This provides the framework for the implementation of, management, monitoring and long-term maintenance of landscape mitigation, including native woodland belts, hedgerow reinforcement and creation, tree planting, meadow and grassland establishment, and landscape enhancement areas designed to integrate the Proposed Development into its landscape setting and reduce visual effects over time. The Proposed Development will be constructed and operated in accordance with the approved plans and parameters which secure: • Siting infrastructure within the existing field pattern to maximise the screening effect of existing vegetation; • Protection of existing landscape features through design and construction controls; • Minimum setbacks and buffers from key landscape features, including: - 5m from hedgerows; - 15m from individual tree; - 25m from woodland; - 10m from waterbodies and watercourses.	Included in commitment	Operation	LEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			• Siting of larger infrastructure, including BESS and substations, to maintain separation distances from residential properties and Public Rights of Way (PRoW); and • Avoidance of visually sensitive land parcels to minimise effects on the character and setting of nearby settlements.			
Chapter 7: Landscape and Visual	Section 7.6 (7.6.9)	Impact of the Proposed Development on landscape character and visual amenity during operation	Landscape planting will be implemented and managed via the LEMP, in accordance with the **oLEMP [EN0110020/APP/5.13]**, to provide visual mitigation, reinforce local landscape character and enhance ecological connectivity. The following planting types have been proposed across the Proposed Development to provide visual mitigation and introduce landscape features which are characteristic of the landscape setting in the Study Area. These include: • Creation of woodland belts; • Reinforcement of existing field boundary hedgerows where required; • New hedgerows are proposed across the Order Limits, to improve connectivity; • Areas of ecological mitigation; • Reinforced roadside planting; • Planting of individual trees; and • Species rich grassland and wildflower meadow seed mixes will be integrated across the Order Limits.	N/A	Operation	LEMP
Chapter 8: Cultural Heritage and Archaeology	Section 8.6 (8.6.10)	Impacts to potential known and unknown buried archaeology resulting from construction activities	Where possible and practicable, within the confines imposed by other site constraints, there is a preference to avoid disturbing subsurface archaeological remains unnecessarily. Preservation in situ by implementing the Archaeological Investigation and Preservation Strategy (AIPS) (presented with the **ES Volume 3, Appendix 8.7 Archaeological Investigation and Preservation Strategy [EN0110020/APP/6.20]),** is proposed for areas of 'heightened archaeological sensitivity' (HAS), which are defined as heritage assets of known regional research value, or with the potential to be of regional research value. This mitigation can take the form of: • Creation of Exclusion Zones within which no infrastructure is placed and no ground disturbance allowed, with the exception of planting associated with BNG; • Micro siting and avoidance; and • The use of alternate construction methods, which allow for the placement of infrastructure above heritage assets, or below in the case of the Cable Corridors, without causing physical disturbance or truncation of those assets. Where avoidance is not practicable, controlled archaeological excavations and close archaeological monitoring can be undertaken to offset harm caused by direct effects to buried archaeology. The **oWSI [EN0110020/APP/5.16]** also sets out the requirements for archaeological monitoring of soil stripping during the construction phase.	Monitoring included in commitment	Construction Decommissioning	WSI CEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
Chapter 8: Cultural Heritage and Archaeology	Section 8.6 (8.6.2-5, 8.6.27)	Impact to setting of heritage assets	Impacts on the setting of heritage assets will be managed primarily through embedded, design-led mitigation and landscape integration measures. The Proposed Development has incorporated changes to layout and Order Limits to reduce effects on the setting of sensitive heritage assets, including Conservation Areas, Scheduled Monuments and Registered Parks and Gardens. These measures include the removal of land parcels, increased separation distances and revised siting of infrastructure, as documented in the design evolution of the Proposed Development. Setting effects will be managed through the implementation of the LEMP, in accordance with the **oLEMP [EN0110020/APP/5.13]** and relevant design parameters.	N/A	Operation	LEMP
Chapter 9: Ground Conditions and Land Quality	Section 9.6 (9.6.2, 9.6.3)	Impacts of the Proposed Development on ground conditions, soil quality and land quality during construction	Construction-phase effects on ground conditions, including soil quality, agricultural land and excavated materials, will be managed through an approved CEMP in accordance with the approved **oCEMP [EN0110020/APP/5.9]**. This includes procedures to address erosion and contaminated land, as well as emergency protocols for managing accidental spillages and leaks, or if contaminated land or deleterious ground conditions are encountered during ground works. Mitigation measures incorporated into the **oCEMP [EN0110020/APP/5.9]** include: • All works will be undertaken in accordance with the relevant Construction (Design and Management) Regulations 2015; • Appropriate procedures to address the risk of soil and groundwater contamination and deleterious ground conditions during ground disturbance works will be identified and implemented; • Handling of potentially polluting substances (e.g. fuels, soils, drilling fluids), including excavated soils and wastes, in line with technical guidance and best working practices. All fuel and Control of Substances Hazardous to Health (COSHH) substances will be stored and handled in accordance with the relevant Environment Agency Pollution Prevention Guidance (PPG) notes, e.g. storage and refuelling in designated areas with secondary containment, routine inspections and maintenance of machinery and infrastructure and spill response planning and training; • Management of clean topsoil and subsoil by the implementation of a Soil Management Plan (SMP), developed in line with the Department for Environment, Food, and Rural Affairs (DEFRA) 2009 *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites PB13298,* including retuning temporary working areas to their pre-existing condition, as far as reasonably practicable; • Implementation of dust suppression measures as necessary to prevent the mobilisation and off-site migration of dust particles, for example damping down using water sprays, covering of stockpiles and wheel-washing; • Design of the Site drainage to adequately manage surface water discharges, including water quality monitoring, containment and	The construction phases of work will be audited and monitored against the requirements of the CEMP by the contractor to ensure adherence.	Construction	CEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			treatment, as required. The Lead Local Flood Authority (LLFA) and the appropriate utility company will be consulted on the potential requirement for an oil interceptor and sediment trap for the BESS and the substation areas at the point where site surface water runoff enters any sewerage network; • Piling activities will be undertaken in accordance with industry best practice. If building piles are in areas identified with potentially contaminated land, ground investigation findings will inform foundation works risk assessments which will determine the most appropriate piling techniques and foundation design to effectively mitigate potential risks; • Trenchless crossings for cable installation will be undertaken in accordance with industry best practice and carefully managed to prevent the inadvertent release of drilling fluids into aquifers or the surrounding surface environment, including land and water bodies; • In areas of steeper terrain in western W2, geotechnical investigations will be undertaken prior to construction to inform the design of a roadway and cable installation method; • Identification and appropriate procedures to address the risks of soil and groundwater contamination during dewatering, if required, including management of water from excavations via the Site drainage / treatment system; • A Unexploded Ordnance (UXO) risk assessment will be conducted prior to construction, and if required, a safety plan will be developed to ensure UXO risk is identified and addressed before construction begins, where required; • Construction workers will be required to use appropriate Personal Protective Equipment (PPE) and adhere to all relevant Health & Safety protocols, plans, and procedures; • Management of clean topsoil and subsoil by the implementation of a SMP, developed in line with the DEFRA 2009 *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites PB13298,* including retuning temporary working areas to their pre-existing condition, as far as reasonably practicable; • Implementation of dust suppression measures as necessary to prevent the mobilisation and off-site migration of dust particles, for example damping down using water sprays, covering of stockpiles and wheel-washing; and • Design of the Site drainage to adequately manage surface water discharges, including water quality monitoring, containment and treatment, as required. The LLFA and the appropriate utility company will be consulted on the potential requirement for an oil interceptor and sediment trap for the BESS and the substation areas at the point where site surface water runoff enters any sewerage network.			

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
Chapter 9: Ground Conditions and Land Quality	Section 9.6 (9.6.6)	Impacts of the Proposed Development on ground conditions, soil quality and land quality during construction	A SMP will be included as a supplementary plan within the CEMP to manage potential impacts on soil and agricultural land. best practice measures are likely to include: • Identifying those areas within our Site which may be more susceptible to damage, for example, the temporary access tracks, construction compounds and steeper slopes; • Presenting guidelines as to when soil handling should be avoided (for example when it is wet or after periods of heavy rainfall or high winds) and further guidelines as to when soils are suitable for being handled or manoeuvred; • Providing soil management guidelines including relating to topsoil stripping, construction and storage of topsoil and subsoil in stockpiles and stockpile management; • Providing guidelines to maintain the physical properties of the soil; and • Independent auditing and monitoring of the contractor. The SMP will detail best practice measures for soil management to preserve soil structure and function, with the objective of restoring land to its pre-construction condition following temporary use and again after decommissioning	The construction phases of work will be audited and monitored against the requirements of the CEMP by the contractor to ensure adherence.	Construction	CEMP
Chapter 9: Ground Conditions and Land Quality	Section 9.6 (9.6.9)	Impact presented by handling of material for the construction of the Proposed Development	Excavated materials arising during construction will be managed via the CEMP, accordance with the approved **oCEMP [EN0110020/APP/5.9]**, including the oEMMP. This will include measures to ensure the appropriate handling, storage, re-use and disposal of excavated materials during the construction phase. This plan will help ensure that all excavated materials are managed in an environmentally responsible and compliant manner throughout the construction process. The main components of the plan are likely to include: • The Excavated Materials Management Plan (EMMP) will detail how excavated materials will be managed in accordance with applicable legislation and guidance, including the Construction (Design and Management) Regulations 2015 and relevant environmental protection laws. This will ensure that all handling, storage, reuse of excavated materials and disposal activities are carried out in a legally compliant and environmentally responsible manner, with any waste generated managed in full compliance with applicable waste regulations; • Detailed protocols for identifying and categorising excavated materials (e.g., contaminated vs. non-contaminated), along with clear guidelines for their safe handling, storage, and transportation; • Waste management strategies for reducing waste generation, including the reuse and recycling of materials wherever feasible, as well as the proper disposal of any remaining waste materials; • Mitigation measures to prevent environmental contamination, such as dust control, erosion prevention, and spill response plans; • Methods for evaluating the effectiveness of the EMMP, including routine inspections, scheduled audits, and defined reporting requirements;	The construction phase of work will be audited against the requirements of the EMMP by the contractor to ensure adherence.	Construction	EMMP CEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			• Measures to ensure the health and safety of workers and the public, including tailored training programs for those involved in or impacted by construction activities, and emergency response plans; • Plans for restoring the Site after excavation activities are completed, including soil stabilisation and vegetation replanting; and • Requirements for maintaining records of all activities related to the management of excavated materials, including permits, waste transfer notes, and monitoring reports.			
Chapter 9: Ground Conditions and Land Quality	Section 9.6 (9.6.10)	Impact of the construction of the Proposed Development on land contamination	In addition, the CEMP will be supported by other supplementary plans including: • A Site Waste Management Plan, outlining how contractors will manage and dispose of waste materials through appropriate recycling facilities or licensed landfill sites. The selection of a suitable landfill for any off-site disposal of contaminated soil will be based on waste classification results, determined through chemical analysis or Waste Acceptance Criteria testing, as required. Where feasible, non-contaminated excavated material will be reused on-site; and • An incident response plan for spillages and other environmental incidents. All site personnel will be required to read and understand the plan. On-site provisions are likely to include equipment such as booms, bunding, and absorbent materials to contain and manage serious spills or leaks.	N/A	Construction	CEMP
Chapter 9: Ground Conditions and Land Quality	Section 9.6 (9.6.13)	Impact of the operation of the Proposed Development on land contamination	Potential impacts related to land contamination and groundwater will be primarily addressed through the implementation of an Operational Environmental Management Plan (OEMP) in accordance with the **oOEMP [EN0110020/APP/5.10].** Mitigation during the operational phase is likely to include: • Measures to maintain land quality throughout the operational phase of the Proposed Development, which will be outlined and secured through implementation of the operational phase of the SMP. The SMP will identify areas within the Site that may be more vulnerable to damage (such as steep slopes), as well as conditions under which soil handling would be inappropriate (for example, when the soil is wet or following periods of heavy rainfall or strong winds). It will also set out best practice soil management measures aimed at preserving the physical properties of the soil, ensuring the land retains its capacity to support its intended function throughout the operational lifetime of the Proposed Development; • Maintenance works will be subject to appropriate method statements, detailing, amongst things, use of PPE, management of (unexpected) contamination, soil management and polluting substance storage and handling; and • Although potential impacts on soils during the operational phase are expected to be minimal, good practice will be applied to ensure that any activities, such as the maintenance and management of land beneath the solar photovoltaic (PV) modules, are carried out in a way	N/A	Operation	OEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			that avoids damage and encourages regeneration of the soil resource, as far as reasonably practicable. These measures will also contribute to BNG by supporting soil health and enhancing habitat quality across the Site. .			
Chapter 9: Ground Conditions and Land Quality	Section 9.6 (9.6.15)	Impacts presented by the decommissioning of the Proposed Development on ground conditions and land quality	The decommissioning phase of the Proposed Development will be implemented via the DEMP, in accordance with the **oDEMP [EN0110020/APP/5.11]**. This establishes the framework for managing effects on ground conditions and land quality during decommissioning, including soil handling and reinstatement, management of excavated materials, traffic controls and pollution prevention measures, to ensure land is restored to an agreed post-development condition, subject to landowner agreement.	N/A	Decommissioning	DEMP
Chapter 9: Ground Conditions and Land Quality	Section 9.8 (9.8.2, 9.8.3)	Exposure of Construction Workers to Contamination through Encountering Contaminated Soils as a Result of Ground Works	Phase 2 Ground Investigations (contaminated land, ground gas and ground stability) in areas identified in **ES Volume 3, Appendix 9.7 – 9.9: Phase 1 Contaminated Land Reports [EN0110020/APP/6.20]** as registered or historic landfills. Phase 2 Ground Investigations in areas of historic surface coal mining required if there is evidence of contamination encountered during construction.	N/A	Construction	CEMP
Chapter 9: Ground Conditions and Land Quality	Section 9.8 (9.8.2)	Potential Effects Resulting from Construction on Land with Deleterious Ground Conditions - Unstable Land Associated with Historic Coal Mining and / or Landfills	Phase 2 Ground Investigations (contaminated land, ground gas and ground stability) in any areas within 20m of identified mine entries prior to construction, in coordination with the Mining Remediation Authority (MRA). Phase 2 Ground Investigations in areas of historic surface coal mining required if ground stability issues are encountered during construction.	N/A	Construction	CEMP
Chapter 9: Ground Conditions and Land Quality	Section 9.8 (9.8.3)	Potential Effects Resulting from Construction on Land with Deleterious Ground Conditions - Exposure of Construction Workers to Ground Gas as a Result of Ground Works	In areas such as known surface coal workings, if voids or potentially gas-generating pollutants are encountered during construction, then appropriate Phase 2 investigations and gas monitoring will also be undertaken.	Monitoring included in commitment	Construction	CEMP
Chapter 10: Water Resources and Flood Risk	Section 10.6 (10.6.5-21)	Impact associated with construction activities as part of the Proposed Development	Construction-phase effects on water resources and flood risk will be avoided, reduced and managed via the CEMP in accordance with the approved **oCEMP [EN0110020/APP/5.9].**	Monitoring included in commitment	Construction	CEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			The CEMP will outline the measures needed to avoid, minimise, or mitigate environmental impacts. This includes procedures to prevent impacts to water quality e.g. through sediment control and chemical spill management; measures manage runoff; wastewater management; and general best practice to prevent impacts to the water environment and manage flood risk. The contractor will audit and monitor all construction phases to ensure compliance with the commitments outlined in the CEMP. <u>Management of Chemical Pollution</u> 10m watercourse buffers will be in place for construction works with the exception of watercourse crossings for access tracks and cable crossings. A pollution prevention plan will be drafted and form part of the CEMP. Fuels and other potentially polluting chemicals will be stored in accordance with the relevant UK legislation, regulations, and good practice. Spill prevention measures will be implemented based on best practice guidance All workers will be briefed on the emergency spill procedures and ensuring they are implemented. The construction drainage management system to be in place throughout construction will incorporate the appropriate surface water treatment trains to ensure any water discharged from the Site is of a suitable water quality. Speed limits for vehicles transporting fresh concrete will be set at a maximum of 15 miles per hour (mph) once on site within the Order Limits. There will be a designated wash-out facility within the construction compounds. During construction, machinery will be regularly maintained to ensure that there is minimal potential for fuel or oil leaks / spillages to occur. Where practicable concrete mixing and washing down of mixing plant is to be carried out by the suppliers and undertaken offsite. <u>Management of sedimentation and erosion</u> Where new large excavations / earthworks are needed e.g. for substation foundations, these works will be minimised during heavy precipitation events. The construction drainage management system to be in place throughout construction will incorporate the appropriate sediment capture methods to ensure any water discharged is of a suitable water quality. Silt traps and other appropriate sediment capture measures will be utilised during construction. All stockpiled material (soils) will be stored in accordance with the outline Soil Management Plan which is included within the **oCEMP [EN0110020/APP/5.9].** Stockpiles will not be stored within 10m of a watercourse, waterbody, or drainage ditch. Soil will be seeded or covered in a geotextile membrane to prevent sediment erosion and wash towards surface water features. Sediment traps around stockpiles will be employed where needed. Stockpiles will be regularly inspected to ensure there is no erosion and wash out of sediment towards surface water features			
Chapter 10: Water Resources and Flood Risk	Section 10.6	Access tracks and watercourse crossings	Onsite access tracks will utilise existing access road and / tracks where possible. Access tracks will be constructed from permeable aggregate to encourage infiltration of rainwater. In addition, the appropriate track drainage systems will be	Monitoring included in commitment	Construction	SWDS CEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
	(10.6.22-32)		in place which will incorporate SuDS, such as swales and infiltration trenches, to control runoff towards surface water features, prevent increases in runoff rates, and control sediment and pollutant risks from access tracks. Where new watercourse crossings are needed, they will be designed with sufficient capacity to convey the 1 in 100 year plus climate change event and freeboard allowance, in accordance with best practice. Suitable sediment and pollutant capture and control measures will also be in place to ensure no degradation in downstream water quality. Where there is a risk water has been polluted within the works area, it will be treated prior to subsequent discharge. Watercourse crossing installation will be carried out in the drier months where practicable. Where crossings require in channel works and / or works that disturb the bed and banks of the watercourse, a period of surface water quality (and quantity) monitoring will be required. The duration, frequency, and parameters to be monitored will be agreed with the Environment Agency (EA) and/or the LLFA prior to construction. It is assumed a period of pre-construction monitoring will be required to establish baseline conditions, construction phase monitoring, and post-construction monitoring to ensure no long-term impacts. All in-channel works will be overseen by an ECoW to ensure that no adverse impacts occur.			
Chapter 10: Water Resources and Flood Risk	Section 10.6 (10.6.33-40)	Cable crossings	Trenchless construction methods will be used beneath Canal and Rivers Trust (CRT) assets in line with CRT 'Code of Practice for Works affecting the Canal & River Trust. Temporary construction laydown areas needed for the trenchless crossings will be located more than 10m from the bank of the watercourse. Within these areas the measure set out above to control sedimentation and chemical pollution will be in place. Trenched cable installation may be required. Where required, suitable sediment and pollutant capture and control measures will also be in place to ensure no degradation in downstream water quality. Where there is a risk water has been polluted within the works area, it will be treated prior to subsequent discharge. Watercourse crossing installation will be carried out in the drier months where practicable. Where crossings require in channel works and / or works that disturb the bed and banks of the watercourse, a period of surface water quality (and quantity) monitoring will be required. The duration, frequency, and parameters to be monitored will be agreed with the EA and/or the LLFA prior to construction. It is assumed a period of pre-construction monitoring will be required to establish baseline conditions, construction phase monitoring, and post-construction monitoring to ensure no long-term impacts. All in-channel works will be overseen by an ECoW to ensure that no adverse impacts occur.	N/A	Construction	CEMP
Chapter 10: Water Resources and Flood Risk	Section 10.6 (10.6.42-46)	Management of surface water runoff and flood risk across all phases	Surface water drainage for the Proposed Development will be designed, implemented via the Surface Water Drainage Strategy (SWDS), in accordance with the **Outline Surface Water Drainage Strategy (oSWDS)**	Surface water monitoring undertaken in accordance	All Phases	SWDS

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			[EN0110020/APP/5.17], which applies SuDS principles to manage runoff quantity and quality. The oSWDS will ensure that runoff rates and volumes from the Site do not increase flood risk on-site or downstream and that surface water discharges are appropriately managed throughout construction, operation and decommissioning.	with the CEMP, with locations, frequency and parameters agreed with the EA and/or LLFA where required.		
Chapter 10: Water Resources and Flood Risk	Section 10.6 (10.6.48)	Management of water resources and water consumption	Prior to construction a water supplies risk assessment will be carried out for relevant private water supply and licenced abstractions. The risk assessment will be carried out in line with The Private Water Supplies (England) Regulations 2016 and in consultation with the local authority who are responsible for the protection of PWS, the PWS owner, and the EA for licenced abstractions. A Water Consumption Plan will be developed prior to construction to fully identify the water consumption needs, where water will be sourced from, the relevant licences needed, and to ensure no impacts to water quantity for licenced EA abstractions and / or PWS. During the construction phase, 'Porta-loo' type facilities, or equivalent, will be used. The wastewater (foul water) from welfare facilities will be disposed of by a suitably licenced carrier. No foul water discharge from welfare facilities to surface watercourses or waterbodies are proposed. All wastewater collection systems such as cess pits will be regularly inspected and maintained throughout construction so there is no risk of leakage to surface water features.	N/A	Construction	CEMP
Chapter 10: Water Resources and Flood Risk	Section 10.6 (10.6.63, 10.6.68, 10.6.69, 10.6.74)	Impact associated with operational activities as part of the Proposed Development	An OEMP will be in place for the lifetime of the Proposed Development in accordance with the **oOEMP [EN0110020/APP/5.10].** SuDS will be maintained so that they operate effectively. Maintenance activities may include regular inspection of gravel bases and buffer strips, removal of sediment, repairing damaged membranes etc. Fuels and other potentially polluting chemicals will be stored in accordance with the relevant UK legislation, regulations, and good practice. The **oSWD [EN0110020/APP/5.17]** sets out the management of fire water during operation. The **outline Battery Safety Management Plan (oBSMP) [EN0110020/APP/5.15**] also details that to prevent any uncontrolled release of firewater. A detailed Water Consumption Plan will be developed to fully identify the water consumption needs, where water will be sourced from, the relevant licences needed, and to ensure no impacts to water quantity for licenced EA abstractions and / or PWS during the operation of the Proposed Development	N/A	Operation	OEMP SWDS BSMP
Chapter 11: Climate Change and Greenhouse Gases	Section 11.6 (11.6.5)	Impact to the climate as a result of hazards	Climate-related risks associated with the BESS, including the potential for thermal runaway and fire risk under elevated temperature conditions, will be managed through the **outline Battery Safety Management Plan (oBSMP)**	N/A	Operation	BSMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
		associated with the Proposed Development's BESS	**[EN0110020/APP/5.15]**. This sets out the safety and management framework for the BESS during operation, including embedded design controls and operational procedures to mitigate climate-related hazards.			
Chapter 11: Climate Change and Greenhouse Gases	Section 11.6 (11.6.7)	Impact to biodiversity as a result of water stress associated with climate change	Operational measures to manage climate-change-related water stress on biodiversity during the operational phase will be managed via the OEMP, in accordance with the **oOEMP [EN0110020/APP/5.10]**. The OEMP will be implemented to manage operational-phase environmental risks, including measures to maintain habitat condition and biodiversity value during periods of extended dry weather or drought, in coordination with relevant landscape and ecological management plans.	N/A	Operation	OEMP
Chapter 11: Climate Change and Greenhouse Gases	Section 11.6 (11.6.6)	Flooding damage to Site infrastructure	The Proposed Development will be constructed and operated in accordance with the approved plans and parameters which secure measures such as: • Critical electrical infrastructure within the Proposed Development (substation, BESS, inverters) will be subject to a sequential design approach and located with Flood Zone 1 which is defined as land having less than a 1 in 1,000 annual probability (<0.1%) of flooding from rivers or the sea; • PV arrays will be subject to a sequential design approach and located within Flood Zone 1 wherever feasible. Where only a very small number of solar panels are to be located in Flood Zone 2 or 3 (land with a 1 in 1,000 and 1 in 100 annual probability of flooding respectively) mitigation will be followed as presented in **ES Volume 3, Appendix 10.2: Flood Risk Assessment [EN0110020/APP/6.20]**; • PV arrays will be installed on metal frames driven into the ground, thereby reducing their footprint within the floodplain. Where alternative mounting solutions, such as concrete ballasts, are necessary due to elevated flood risk or archaeological sensitivity, their impact on flood risk will be assessed and appropriately mitigated within the Flood Risk; • Electrical infrastructure compounds will include a surface water drainage system which will be designed to attenuate and release runoff up to a 1 in 100-year (plus climate change allowance) scenario without increasing the rate of runoff leaving the Site. The drainage system will be designed in accordance with SuDS principles and local and national SuDS guidance. The principles of the drainage system will be set out in the Flood Risk Assessment and incorporated into the detailed design through the DCO. During extreme rainfall events the location of electrical infrastructure will be drained by this system, which will mitigate against potential pluvial flooding; and • Construction compounds will be located within Flood Zone 1.	N/A	Construction Operation	DCO SWDS
Chapter 11: Climate Change and Greenhouse Gases	Section 11.6 (11.6.10)	Impact of the Proposed Development on climate change	Measures to minimise greenhouse gas (GHG) emissions will be implemented through the approved CEMP during construction and the OEMP during operation. This will include measures relating to efficient resource use, reuse and recycling of materials, waste management in accordance with the waste hierarchy, and minimisation of embodied and operational emissions where practicable.	N/A	Construction Operation	CEMP OEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
Chapter 12: Air Quality	Section 12.6 (Table 12.11)	Impact related to air quality and dust caused by construction	Construction phase effects on air quality, including dust, will be managed through the CEMP, including the Dust Management Plan (DMP) in accordance with the **outline Construction Environmental Management Plan (oCEMP) [EN0110020/APP/5.9]**. This will include measures relating to dust suppression and control, site management and layout, monitoring and inspections, complaints handling, incident response, traffic and access management, and ongoing review and compliance monitoring. Embedded mitigation measures required in the construction phase are derived from Institute of Air Quality Management (IAQM) guidance.	Monitoring included in commitment	Construction	CEMP
Chapter 12: Air Quality	Section 12.6 (Table 12.11)	Impact to air quality resulting from the decommissioning phase of the Proposed Development	Decommissioning dust impacts will be managed using the same mitigation measures as construction. A DEMP will be produced in accordance with the **oDEMP [EN0110020/APP/5.11].**	N/A	Decommissioning	DEMP
Chapter 13: Traffic and Transport	Section 13.6 (13.6.3-10)	Impact to road and PRoW users resulting from construction of the Proposed Development	Construction-phase traffic effects associated with the Proposed Development will be managed through the CTMP and Public Rights of Way Management Plan (PRoWMP) in accordance with the **oCTMP [EN0110020/APP/5.12]** and **oPRoWMP [EN0110020/APP/5.14]**. • Designing entry / exit points onto the road network in accordance with national road design standards and in consultation with the local highway authority to ensure safety; • Managing interactions with the public road network through visibility splays, signage, and traffic controls, with construction traffic yielding to other road users; • Distributing details of vehicle routes to workers to reduce peak-time congestion in sensitive areas; • Scheduling HGV movements outside of peak traffic hours to avoid additional congestion; • Implementing a delivery management system to regulate HGV arrival times and monitor compliance with routing and scheduling; • Monitoring HGV routes and delivery times to ensure adherence to agreed protocols and address any non-compliance; and • Employing specialised haulage services for abnormal loads, including necessary permits and coordination with relevant authorities. A Delivery Management System (DMS) would be implemented as part of the final CTMP to control bookings of HGV deliveries from the start of the construction phase. A Traffic Management and Monitoring System (TMMS) will be considered for implementation as part of the final CTMP to provide details of the technologies and other means employed to monitor HGVs Arrival and departure times will be managed to minimise the number of HGVs travelling to the Proposed Development during the network peak hours for the local highway network.	Monitoring included in commitment	Construction	CTMP PRoWMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			HGVs will be required to follow the approved designated routes and where possible, the re-use of HGVs such as backloading will be encouraged where practical. All fuel will be transported by suitably qualified contractors, and all regulations for the transportation and storage of hazardous substances will be observed. Worker movements will be managed through the implementation of the following measures: • Implementation of a Worker Travel Plan; • Worker arrival and departure times; • Limited and allocated car parking; • Car sharing; and • Minibus service.			
Chapter 13: Traffic and Transport	Section 13.6 (13.6.11)	Impact to road and PRoW users resulting from decommissioning of the Proposed Development	A DEMP will be prepared at the cessation of operations of the Proposed Development. A Decommissioning Traffic Management Plan will be included in the DEMP. An **oDEMP [EN0110020/APP/5.11]** has been submitted with the Application. The traffic management mitigation measures contained in the Decommissioning Traffic Management Plan will likely include the measures that are set out in the **oCTMP [EN0110020/APP/7.5]** as they will be applicable to the decommissioning of the Proposed Development.	n/a	Decommissioning	DEMP
Chapter 14: Noise and Vibration	Section 14.4 (14.4.55)	Impact to noise sensitive receptors during construction	Construction hours will be between 0700hrs and 1900hrs Monday to Friday, 0700hrs to 1300hrs on Saturdays, and no working on Sundays or bank holidays. Exceptions to this may be required for trenchless crossings or for time sensitive construction activities such as concrete pouring. Any work outside of the core hours will be consulted with the relevant local planning authority prior to carrying out certain operations. In addition, any Section 61 of the Control of Pollution Act 1974 consents will be obtained where required.	N/A	Construction	CEMP
Chapter 14: Noise and Vibration	Section 14.6 (14.6.3, 14.6.6, 14.6.7, 14.6.9)	Impact to noise sensitive receptors during construction	Mitigation measures will be implemented through the CEMP, in accordance with the **oCEMP [EN0110020/APP/5.9]** and the CTMP, in accordance with the **oCTMP [EN0110020/APP/7.5].** Measures include: • Scheduling work so that the noisier activities are undertaken, where possible, during the daytime when ambient sound levels are highest, rather than nights when ambient levels are low; • Installing exhaust silencers on vehicles and mechanical plant and regularly maintaining them; • Selecting inherently quiet and / or lower vibration plant where appropriate; • Installing mufflers or silencers on ancillary pneumatic percussive tool; • Ensuring that machines are shut down between work periods or throttled down to a minimum; • Regularly maintaining all equipment used on-site, including maintenance related to noise and vibration emissions;	Monitoring included in commitment	Construction	CEMP CTMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			• Loading vehicles carefully to ensure minimal drop heights; • Positioning ancillary plant such as generators and pumps to cause minimum noise disturbance and if necessary, provide temporary acoustic screens or enclosures; • Fitting mobile plant with directional white noise reversing alarms to avoid tonal noise from the Site; • Noise and vibration generating equipment will not be used within 10m of receptors for any activities; • On-site construction traffic routes will be selected to ensure that they are no less than 100m from noise and vibration sensitive properties, where practicable, unless it can be demonstrated in the final construction plan that the impact can be managed through alternative means; • High voltage cable installation works will not occur adjacent to sensitive receptors for 10 or more days or nights in any 15 consecutive days or nights, or a total number of days exceeding 40 in any 6 consecutive months, where practicable; • Launch pads for trenchless crossing drilling rigs would be installed not less than 80m from the nearest noise sensitive receptors and will include acoustic site hoardings; • Vibratory compaction will not occur for backfill of open trench Cable Corridors for areas of soft ground. This includes Cable Route B; • Piling in relation to the installation of the solar infrastructure will not occur within 20m of Harthill reservoir; • Temporary acoustic barriers in the form of site hoardings will be installed around substation construction areas to limit construction noise impacts adjacent to these areas; and • A management plan will be developed with the appointed construction contractor to ensure that construction vibration levels do not exceed 15 mm/s at Chesterfield Canal. The **oCTMP [EN0110020/APP/5.12]** includes mitigation measures to manage construction traffic routes, schedules and monitor compliance in order to minimise noise from off-site construction traffic. Mitigation measures will include routing off-site construction traffic to avoid roads near to noise and vibration sensitive properties and minor roads, where practicable. These mitigation measures are subject to confirmation and requirement as the final detailed design of the Proposed Development is developed post consent. Details will be provided in the CEMP.			
Chapter 14: Noise and Vibration	Section 14.6 (14.6.11, 14.6.20)	Impact to noise sensitive receptors caused by operation of the Proposed Development	The Proposed Development will be designed and operated to avoid significant adverse operational noise effects, in accordance with the Noise Policy Statement for England and BS 4142. As operational impacts which relate to site layout will arise at the point of construction, the CEMP submitted for approval will set out embedded mitigation	N/A	Construction	CEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			measures which relate to impacts arising from the operation of the Proposed Development. Operational noise levels will be controlled such that noise from the Proposed Development does not give rise to significant adverse impacts on health and quality of life, with embedded mitigation designed to avoid exceedances 5dB above prevailing background sound levels unless the submitted CEMP confirms the written agreement with a landowner and any occupiers. As the detailed design of the Proposed Development progresses, the following mitigation measures may also be considered and implemented where necessary and practicable: • Reducing noise at source, including enclosures, attenuators and louvres; • Installing vibration generating plant on resilient mounts; • Orientating units so that the main noise and vibration generating elements (such as ventilation openings) are facing away from nearby residential properties; and • Installing barriers to provide acoustic screening around noise generating plant.			
Chapter 14: Noise and Vibration	Section 14.6 (14.6.25)	Impact to noise sensitive receptors during decommissioning of the Proposed Development	Noise and vibration effects during decommissioning will be managed through the implementation of a DEMP in accordance with the **oDEMP [EN0110020/APP/5.11]**. Decommissioning noise and vibration controls will be equivalent to those applied during construction.	N/A	Decommissioning	DEMP
Chapter 15: Socio-Economics and Land Use	Section 15.6 (15.6.2)	Employment, skills and supply chain benefits	An **outline Skills and Supply Chain Management Plan [EN0110020/APP/5.18]** submitted as part of the Application and sets out measures that will be put in place to support delivery of employment, training and supply chain opportunities during the construction and operation of the Proposed Development	N/A	Construction Operation	oSSCMP
Chapter 16: Other Environmental Topics - Waste	Section 16.2 (16.2.91-16.2.92)	Impact to the environment as a result of construction waste produced by the Proposed Development	During construction of the Proposed Development, a construction Site Waste Management Plan (SWMP) will be implemented as part of the CEMP in accordance with the **oCEMP [EN0110020/APP/5.9]**. The construction SWMP will demonstrate application of the Definition of Wase Code of Practice (DoW:CoP), as well as the employment of a SMP (where surplus soil is to be re-used onsite) and/or an Materials Management Plan (MMP) (where surplus soil is proposed to be re-used offsite). The disposal of waste, including any surplus soil, will be managed so far as is reasonably practicable to maximise the environmental and development benefits from the use of surplus material and reduce any adverse environmental effects of disposal in accordance with the relevant waste management regulations.	N/A	Construction	SWMP CEMP
Chapter 16: Other Environmental Topics - Waste	Section 16.2 (16.2.99)	Impact to the environment as a result of operational waste produced by the Proposed Development	Operational-phase waste associated with the Proposed Development will be managed in accordance with the Environmental Management System (EMS) that will be prepared for the OEMP. This will include measures relating to waste minimisation, segregation and recycling, management of special and hazardous wastes, compliance with the waste hierarchy and relevant legislation, defined roles and responsibilities, and monitoring, audit and review to support continual improvement in waste management performance.	Monitoring included in commitment	Operation	OEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
Chapter 16: Other Environmental Topics – Waste	Section 16.2 (16.2.106)	Impact to the environment as a result of waste produced during decommissioning	Waste arising during the decommissioning of the Proposed Development will be managed in accordance with an approved DEMP. The DEMP will secure the application of the waste hierarchy during decommissioning, with materials re-used or recycled wherever practicable.	N/A	Decommissioning	DEMP
Chapter 16: Other Environmental Topics - Glint and Glare	Appendix 16.2 (16.2.375, 16.2.376)	Impact presented by glint and glare from the Proposed Development	The Proposed Development will use solar PV modules with anti-reflective coating to minimise glint and glare effects. Areas of screening and landscaping required to mitigate potential glare on a small number of road receptors are included in **oLEMP [EN0110020/APP/5.13].** Further analysis of glint and glare will be undertaken as part of detailed design. Should detailed design still identify these roads as requiring mitigation, then this additional screening and planting will be implemented to mitigate impacts. For residential receptors, where the detailed assessment presents a moderate impact, all of which are over 300m away from solar panels with potential to cause glare, the Applicant is committed through detailed design and post consent consultation with relevant receptors, to explore mitigation solutions, which may be offsite.	N/A	Operation	LEMP
Chapter 16: Other Environmental Topics - Telecommunications and Utilities	Section 16.4 (16.4.2, 16.4.20, 16.4.23-25, 16.4.27, 16.4.28)	Impact to existing telecommunications and utilities as a result of the construction of the Proposed Development	Consultation with relevant utilities and telecommunication providers will continue post consent as detailed design is undertaken and prior to construction. The design of the Proposed Development will continue to incorporate necessary protective measures to safeguard any existing infrastructure which may be impacted by the Proposed Development. Avoiding Danger from Overhead Power Lines Guidance Note GS6 will be followed to maintain safe distances and heights from OHLs during construction a 5.3m minimum clearance would be maintained between the highest point of the PV modules to National Grid 400kV and 275kV overhead lines, accounting for both still and conductor swing. Cable Corridor installation will be undertaken in accordance with HSG47 Guidance: Avoiding Danger from Underground Services where relevant to do so Where cables would cross existing utilities, they would be laid at approximately 90 degrees (perpendicular) to the existing utilities, where possible. Doing so will minimise the effects from the construction of the Proposed Development. The installation of cables at least 0.6m above or below existing utilities infrastructure is a second example of a protective measure that has been implemented into the design process to safeguard any existing infrastructure If an unknown service is encountered, construction works will immediately stop, and the engineer or utility owner will be contacted. The **oCEMP [EN0110020/APP/5.9]** sets out measures compliant with environmental regulations to minimise environmental impacts relating to utilities diversion. In addition, protective provisions for the benefit of statutory undertakers and electronic communications network code operators are included in the **draft Development Consent Order [EN0110020/APP/3.1]**. Mitigation measures are anticipated to be similar to that of construction during the decommissioning phase of the Proposed Development. An updated telecommunications and utilities search will be undertaken prior to any	N/A	Construction/Decommissioning	CEMP DEMP

Primary Topic and Location (Secondary Topic and Location)	Cross-Reference	Impact	Commitment	Monitoring	Phase	Commitment Securing Mechanism
			decommissioning works to appropriately identify and protect any infrastructure installed during the operation and maintenance phase of the Proposed Development.			
Chapter 16: Other Environmental Topics - Major Accidents and Disasters	Section 16.5 (16.5.33)	Impact of the construction of the Proposed Development on major accidents and disasters	The Applicant has committed to implementing a CEMP (in accordance with the **oCEMP [EN0110020/APP/5.9]**), which will include Construction Health and Safety Plan and other relevant fieldwork specific Job Hazard Analysis (JHAs).	N/A	Construction	CEMP
Chapter 16: Other Environmental Topics - Major Accidents and Disasters	Section 16.5 (16.5.37)	Impact on safety of receptors due to fire risk of the Proposed Development	Risks associated with the BESS, including fire risk, will be managed through the implementation of an Battery Safety Management Plan (BSMP). The **oBSMP [EN0110020/APP/5.15]** sets out the safety, prevention and management framework which will be implemented for the BESS during operation, including embedded design controls and operational procedures to minimise the likelihood and consequences of fire events.	N/A	Operation	BSMP
Chapter 16: Other Environmental Topics - Major Accidents and Disasters	Section 16.5 (16.5.40)	Impact of the construction of the Proposed Development on major accidents and disasters	Details of the maintenance of all fencing within the Order Limits of the Proposed Development will be included in the OEMP in accordance with the outline **Operational Environmental Management Plan [EN0110020/APP/5.10].** In addition, following standard industry practice, a Hazard and Risk Analysis (HRA) will be undertaken throughout the lifecycle of the Proposed Development.	N/A	Operation	OEMP
Chapter 16: Other Environmental Topics - Electromagnetic Fields	Section 16.6 (16.6.38)	Impact to aquatic ecology from potential electromagnetic field (EMF)	All high voltage cabling would be laid below ground according to British Standards and regulations. Cables crossing watercourses would be installed at least 1.5m below the bed of the watercourse. Mitigation relating to EMFs will be secured through the OEMP in accordance with the **outline Operational Environmental Management Plan [EN0110020/APP/5.10]**	N/A	Operation	OEMP

References

[1] https://assets.publishing.service.gov.uk/media/689c5ee17b2e384441636196/The_Statutory_Biodiversity_Metric_-_User_Guide_-_July_2025.pdf (Accessed Sept 2025)

[2] https://nationalhighways.co.uk/suppliers/design-standards-and-specifications/design-manual-for-roads-and-bridges-dmrb/ (Accessed August 2025)

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