SUNNICA ENERGY FARM

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Volume 6

Environmental Statement

6.2 Appendix 16C: Framework Construction Environmental Management Plan

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Sunnica Energy Farm

Environmental Statement
Appendix 16C: Framework Construction Environmental Management Plan

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1 Introduction

1.1.1 This document provides a framework for the Construction Environmental Management Plan (CEMP) for Sunnica Energy Farm (hereafter referred to as the Scheme). The CEMP will be produced for the Scheme following the appointment of a contractor, prior to the start of works. The CEMP will be prepared in accordance with this Framework CEMP, as a Requirement of the DCO.

1.1.2 As the Scheme is split across ~~four~~ three main areas (i.e. Sunnica East Sites A and B and Sunnica West Site~~s~~ A ~~and B~~) (see section 1.4 below) and may be constructed in phases, there may be more than one CEMP prepared for the Scheme, as a CEMP may be prepared per phase and / or per site. This will be determined by the appointed contractor once the detailed phasing for the construction programme is known.

1.1.3 This document does not address operational or decommissioning activities, which are subject to separate environmental management plans and procedures. A Framework Operation Environmental Management Plan (OEMP) has been submitted as part of the DCO Application in **Appendix 16F** of this Environmental Statement **[EN010106/APP/6.2~~APP-126~~]**. A Framework Decommissioning Environmental Management Plan (DEMP) has been submitted as part of the DCO Application in **Appendix 16E** of this Environmental Statement **[EN010106/APP/6.2~~APP-125~~]**.

1.1.4 An Environmental Impact Assessment (EIA) has been undertaken for the Scheme and an Environmental Statement (ES) has been prepared in accordance with the Infrastructure Planning (EIA) Regulations 2017 (EIA Regulations) (Ref 1). In accordance with the requirements of the EIA Regulations, the ES contains the assessment of the likely significant effects on the environment that may be caused during the construction of the Scheme and describes proposed mitigation measures.

1.1.5 This Framework CEMP demonstrates how the mitigation measures included within the ES will be implemented. It also sets out the monitoring and auditing activities designed to ensure that such mitigation measures are carried out, and that they are effective.

1.1.6 This document provides the likely structure of the CEMP(s) and some outline information relevant to the CEMP(s).

1.1.7 The CEMP(s) will be produced in line with this Framework CEMP once the Development Consent Order (DCO) is granted. The CEMP will be approved by the appropriate local planning authorities in consultation with the relevant highway authority and Environment Agency.

1.1.8 The key elements of this Framework CEMP include:

a. An overview of the Scheme and associated construction programme;

b. Prior assessment of environmental impacts (through the EIA);

c. Reduction of potential adverse impacts through design and other mitigation measures;

d. Monitoring of effectiveness of mitigation measures;

e. Corrective action procedure; and

f. Links to other complementary plans and procedures.

1.1.9 In summary, this Framework CEMP identifies how commitments made in the ES will be translated into actions, and includes a process from implementing the actions through to the allocation of key roles and responsibilities.

1.1.10 The appointed contractor will be responsible for working in accordance with the environmental controls documented in this Framework CEMP, pursuant to the DCO. The overall responsibility for implementation of the CEMP(s) will lie with the appointed contractor as a contractual responsibility to the Applicant, as the Applicant is ultimately responsible for compliance with the Requirements of the DCO.

1.1.11 This Framework CEMP has been designed with the objective of compliance with the relevant environmental legislation and mitigation measures set out within the ES.

1.1.12 Any additional construction licences, permits, or approvals that are required will be listed in the CEMP(s), including any environmental information submitted in respect of them.

1.2 The Applicant

1.2.1 Sunnica Ltd (hereafter referred to as the Applicant) has submitted the DCO Application for the construction, operation, and decommissioning of the Scheme. The DCO Application is submitted to the Planning Inspectorate, with the decision of whether to grant a DCO being made by the Secretary of State pursuant to the Planning Act 2008 (Ref 2).

1.3 The Order limits

1.3.1 The Order limits comprise: Sunnica East Site A, Sunnica East Site B and~~,~~ Sunnica West Site A ~~and Sunnica West Site B~~. The Order limits also include the associated electrical infrastructure for connection to the national transmission system, comprising Grid Connection Route A and~~,~~ Grid Connection Route B~~, and an extension to the Burwell National Grid Substation~~. Grid Connection Route A will run from Sunnica East Site A to Sunnica East Site B, and from there to Sunnica West Site A. Grid Connection Route B will run from Sunnica West Site A to ~~Sunnica West Site B, and from there to~~ Burwell National Grid Substation ~~Extension~~. Each is located within the following administrative areas:

a. Sunnica East Site A: both East Cambridgeshire District Council (ECDC) and West Suffolk Council (WSC);

b. Sunnica East Site B: WSC;

c. Sunnica West Site A: ECDC;

~~d. Sunnica West Site B: ECDC;~~

~~e.~~d. Grid Connection Route A: WSC and ECDC;

~~f.~~e. Grid Connection Route B: ECDC; and

~~g.~~f. Burwell National Grid Substation ~~Extension~~: ECDC.

1.3.2 Where a CEMP is within the administrative area of one relevant planning authority, it will be approved by that authority. If a CEMP is for a phase or Site that is within more than one administrative area, both relevant planning authorities will be required to approve the CEMP.

1.3.3 The maximum area of land potentially required for the construction, operation, and maintenance of the Scheme, which includes land required for permanent and temporary purposes, is shown on Figure 2-1**.**

1.3.4 The CEMP(s) will include (as relevant for the phase covered by the CEMP) plans showing the land within each administrative area, plans illustrating the Scheme, and the Works Areas and Schedule 1 of the DCO.

1.4 The Scheme

1.4.1 Sunnica East Site A, Sunnica East Site B~~,~~ and Sunnica West Site A~~, and Sunnica West Site B~~ will consist of the same principal infrastructure. The principal infrastructure for the Sites and~~,~~ the cable route~~, and Burwell National Grid Substation Extension~~ are presented in **Chapter 3: Scheme Description** of this Environmental Statement **[REP2-022]**.

2 Construction Environmental Management

2.1 Construction Activities

2.1.1 Construction activities are described in detail in **Chapter 3: Scheme Description** of this Environmental Statement **[REP2-022]**. The construction activities undertaken during the construction stage of the Scheme will include:

a. Preparation of land for construction, including localised site levelling (where required). The land level changes will be localised, and will not be noticeable;

b. Import of construction materials, plant and equipment to site;

c. Establishment of the perimeter fence;

d. Establishment of the construction compounds;

e. Construction of the internal access roads;

f. Marking out the location of the Scheme infrastructure; and

g. Installing the Scheme infrastructure.

2.1.2 Temporary construction compounds will be established throughout the Sites for the construction phase. Six will be located within Sunnica East Site A and B, and ~~four~~ three will be located within Sunnica West Site A ~~and B~~. One permanent compound will be located in Sunnica East Site A and one in Sunnica East Site B. A number of construction laydown areas will be required for the construction of the cable route. The number of construction laydown areas will be defined during detailed design; however, there will be a maximum of 15. ~~There will be one laydown area for the Burwell National Grid Extension, if this Option is pursued and this will be located within the Order limits.~~

2.2 Construction Programme

2.2.1 The current expectation is that site preparation, construction, and commissioning of the Scheme will take approximately 24 months, however, there is the possibility that the construction will be phased and the overall period could therefore be longer.

2.2.2 Allowing sufficient time to receive consent and to discharge the DCO Requirements, it is anticipated that the earliest that site preparation and enabling works on-site for the Scheme will start is summer 2023, with an expected operational start date of no earlier than summer 2025.

2.2.3 A written scheme setting out the phases of construction of the Scheme is required to be submitted to and approved by both relevant planning authorities prior to commencement of the Scheme.

2.3 Working Hours

2.3.1 Core construction working hours will run from 07:00 to 19:00 Monday to Saturday, with working days as one 12-hour shift, with employees travelling

to and from Site an hour either side of these times (i.e. between 06:00 and 07:00, and 19:00 and 20:00). Where on-site works are to be conducted outside the core working hours, they will comply with the restrictions stated in the relevant CEMP, and any other restrictions agreed with the relevant planning authorities pursuant to the section 61 consent process as set out below. Measures to control the routing and timing of staff vehicles are set out in **Appendix 13C: Framework Construction Traffic Management Plan (CTMP) and Travel Plan** of this Environmental Statement **[EN010106/APP/6.2]**.

2.4 Control of Noise

2.4.1 A display board will be installed on-site and a website will be set up. These will include contact details for the Site Manager or alternative public interface with whom complaints can be lodged. A log book of complaints will be prepared and managed by the Site Manager.

2.4.2 Applications for Section 61 consents, variations and dispensations under the Control of Pollution Act 1974 (COPA) will be submitted to the relevant local planning authority for all construction activities which are required to be undertaken.

2.5 Control of Light

2.5.1 Construction temporary site lighting, in the form of mobile lighting towers with a power output of 8 kilo volt-amperes (kVAs), will be required in areas where natural lighting is unable to reach (sheltered/confined areas), and during core working hours within winter months. Artificial lighting will be provided to maintain sufficient security and health and safety for the construction site, whilst adopting mitigation principles to avoid excessive glare, and minimise spill of light to nearby receptors (including ecology and residents), outside of the Order limits as far as reasonably practicable.

2.5.2 All construction lighting will be deployed in accordance with the following recommendations to prevent or reduce the impact on human and ecological receptors:

a. The use of lighting will be minimised to that required for safe site operations;

b. Lighting will utilise directional fittings to minimise outward light spill and glare (e.g. via the use of light hoods/cowls which direct light below the horizontal plane, preferably at an angle greater than 20° from horizontal); and

c. Lighting will be directed towards the middle of the construction site rather than towards the boundaries.

2.6 Traffic Management

2.6.1 During construction, the appointed contractor will ensure that the impacts from construction traffic on the local community (including local residents, businesses and users of the surrounding transport network) are minimised, where reasonably practicable, by implementing the measures set out in

Appendix 13C: Framework CTMP and Travel Plan of this Environmental Statement **[EN010106/APP/6.2]** and **Chapter 13: Transport and Access** of this Environmental Statement **[APP-045]**.

2.6.2 The Framework CTMP sets out the proposals to manage construction traffic during the construction of the Scheme and considers the management of all freight traffic (i.e. heavy goods vehicles (HGVs)), as well as staff traffic to the car parks located within the Order limits.

2.6.3 A detailed CTMP will be developed by the appointed contractor in consultation with the appropriate local planning authorities and will be secured by a Requirement of the DCO. This will encourage staff to utilise sustainable modes of transport for journeys to and from the site where possible.

2.7 Parking Provisions

2.7.1 There will be two central car parking areas within the Order limits off the main access routes during construction. Workers will utilise these two car parks and will be transported to the various locations within the Order limits via minibus, refer to **Appendix 13C: Framework CTMP and Travel Plan** of this Environmental Statement **[EN010106/APP/6.2].** A self-contained wheel wash facility will be installed for use by HGVs and other construction machinery prior to exiting the Site onto the public highway if there is mud or debris on the construction site. For loads unable to use the fixed wheel wash facility, localised wheel washing will be set up to ensure no detrimental effect to the highway.

2.8 Recycling and Disposing of Waste

2.8.1 In order to control the waste generated on-site during site preparation and construction, the contractor will separate the main waste streams on-site, prior to transport to an approved, licensed third party waste facility for recycling or disposal.

2.8.2 Prior to the construction works commencing, a Construction Resource Management Plan (CRMP) will be prepared by the contractor, which will specify the waste streams to be estimated and monitored and goals set with regards to the waste produced. The CRMP will be finalised with specific measures to be implemented prior to the start of construction, and would be prepared and approved as part of the CEMP(s).

2.8.3 All waste removed from the Order limits will be undertaken by fully licensed waste carriers and taken to licensed waste facilities for recycling or disposal.

2.9 Security

2.9.1 Site security during construction will be managed by the contractor. The site security fencing will be installed at the start of the construction period. Any storage of materials and chemicals would be kept secure to prevent theft of vandalism. A safe system for accessing the materials storage areas would be implemented by the contractor.

2.10 Best Practice Measures

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

2.11 Communications ~~Strategy~~

2.11.1 A Communication Strategy will be developed by the appointed contractor to ensure effective and open communication is undertaken with relevant stakeholders including the relevant local planning authorities, statutory consultees, local stakeholders and the public.

2.11.2 The Communication Strategy will determine the most effective means of communicating with stakeholders. This may include, but is not limited to, information boards on the hoardings surrounding the Sites, updating local stakeholders and community via letter, leaflets and emails, as well as holding community consultation events at key points during construction.

2.11.3 An Agricultural Liaison Officer will be appointed by the contractor to liaise with agricultural landowners and occupiers in cable corridor throughout the construction of the Scheme.

2.11.4 The Agricultural Liaison Officer will:

- liaise with agricultural landowners and occupiers in respect of the timings and duration of the construction works;
- liaise with agricultural landowners and occupiers in respect of field drainage as set out in this CEMP;
- undertake pre-construction and day-to-day discussions with affected owner/occupiers to minimise disruption, where possible, to existing farming regimes and timings of activities;
- liaise with agricultural landowners and occupiers in respect of reinstatement measures following completion of the cable works;
- be contactable by all landowners and occupiers through a direct phone number during the working hours defined in this CEMP;
- have relevant experience of working with landowners and agricultural businesses and will have knowledge of the compulsory acquisition process (if required) and working on a linear infrastructure project; and
- be in post for up to one year post completion of construction of the cable route.

3 Management and Mitigation Plan

3.1 Purpose

3.1.1 This section of the Framework CEMP sets out the mitigation and management measures to be included as a minimum in the CEMP(s). It also sets out monitoring requirements and the responsible party identified for each mitigation/ enhancement measure or monitoring requirement. This section will be updated and developed following consent as part of the preparation of the CEMP(s).

Table 3-1 Climate Change

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Greenhouse Gas (GHG) emissions from construction traffic and equipment. Use of natural resources in construction materials. Increased flood risk on-site during construction due to climate change.	Appropriate standard and best practice control measures will be included in the CEMP(s), which will include: • Adopting the CCS to assist in reducing pollution, including greenhouse gases (GHGs), from the Scheme by employing good industry practice measures. These will be listed in the CEMP(s); • Encouraging the use of lower carbon modes of transport by identifying and communicating local bus connections and pedestrian and cycle access routes to/ from the Scheme to all construction staff and providing appropriate facilities for the safe storage of cycles; • Implementing a Travel Plan to reduce the volume of construction staff and employee trips to the Scheme. This is included in **Appendix 13C: Framework CTMP and Travel Plan** of this Environmental Statement **[EN010106/APP/6.2]**; • Liaising with construction personnel for potential to implement staff minibuses and car sharing options; • The contractor will be required to report on fuel consumption and carbon footprint following construction of the Scheme; • Switching vehicles and plant off when not in use and ensuring construction vehicles conform to current EU emissions standards;	To be confirmed by the contractor in the CEMP(s)	The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Conducting regular planned maintenance of the construction plant and machinery to optimise efficiency; • Increasing recyclability by segregating construction waste to be re-used and recycled where reasonably practicable; • Disposing of wastes locally where reasonably practicable to reduce emissions associated with transportation; • Designing, constructing and implementing the Scheme in such a way as to minimise the creation of waste and maximise the use of alternative materials with lower embodied carbon such as locally sourced products and materials with a higher recycled content where feasible; and • Reusing suitable infrastructure and resources already available in the Order land where possible to minimise the use of natural resources and unnecessary materials (e.g. reusing excavated soil for fill requirements) The following measures are required to ensure safety of staff during construction from increased flood risk on-site due to climate change. More details on the specific mitigation measures for flood risk are provided in **Table 3-4**: • Storing topsoil and other construction materials outside of the 1 in 100-year floodplain extent (Flood Zone 3); • Appointing at least one designated Weather Warden who is familiar with the risks and remains vigilant to news reports, Environment Agency flood warnings, relevant weather warnings and water levels of the local waterways; and • Health and safety plans developed for construction activities will be required to account for potential climate change impacts on workers, such as flooding and heatwaves. Mitigation measures adopted as part of the Scheme design to ensure the Scheme's resilience to increased flood risk as a result of climate change are listed within **Table 3-4.**		

Table 3-2 Cultural Heritage

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Potential for impact upon archaeological deposits. Temporary impacts on the setting of below ground scheduled monuments and other built heritage assets during construction associated with increased visual and noise intrusion.	Embedded mitigation measures have been included in the Scheme's design to avoid and reduce impacts upon archaeological deposits. These are listed below: • Ten areas of significant (high value) archaeological activity (totalling approximately 97 ha) have been removed from the developable area of the Sites and designated as 'Native Grassland Planting'. These are shown the **Works Plans [EN010106/APP/6.2]**~~on Figures 3-1 and 3-2~~. • Flexibility has been allowed for in the Scheme design, with options for alterations to construction methodology or placement of panels and infrastructure (within the confines of the limits of deviation set out for the developable areas within the **Works Plans [EN010106/APP/6.2~~REP2-005~~]**) where significant archaeology is identified and requires preservation in situ, or where significant effects are anticipated on the setting of assets. The extent and nature of any mitigation by design will be informed by the results of the ongoing trial trench evaluation works, which will provide information on the depth and character of any archaeological remains present within the Order limits footprint. Prior to construction, the following mitigation measures will be adopted to further inform the detailed design of the Scheme and to avoid or minimise impacts on archaeological deposits: • All archaeological work will be undertaken in line with a Detailed Archaeological Mitigation Strategy (DAMS). This has been submitted at Deadline 5 in advance of receiving ~~will be written following the completion of~~ a Mitigation Design Brief from the ~~to be produced by the~~ Planning Archaeologists for Suffolk and Cambridgeshire to aid consultation. The DAMS will ~~also~~ set out any opportunities for education, research, museum and public interpretation arising from the results of the archaeological works, following consultation on these matters with relevant local consultees. The basic principle of the mitigation strategy (to be set out within the DAMS document) will be to mitigate impacts on archaeological sites identified within the Order limits. Rather than taking a blanket approach of strip, map and record, excavations would instead be targeted upon those sites that would maximise knowledge gain in order to answer the Scheme and site-specific research questions (which will be set out within the DAMS	Site specific Written Schemes of Investigation (WSI) will be submitted and agreed with CCC and SCC All archaeological work will be undertaken in line with a Detailed Archaeological Mitigation Strategy (DAMS). This has been submitted at Deadline 5 in advance of receiving ~~will be written following the completion of~~ a Mitigation Design Brief from ~~to be produced by~~ the County Archaeologists for Suffolk and Cambridgeshire.	The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	document). Other sites may only warrant further investigation, rather than full-scale excavation. • The Archaeological Protection Areas (APAs) identified in the DAMS and Outline Heritage Environmental Management Plan will be protected by the production of Heritage Environmental Management Plan Method Statements for each APA. These method statements, in respect of the construction phase, will be submitted as part of the CEMP. • Each mitigation area will require a site-specific Written Scheme of Investigation (WSI) to be agreed with the relevant county archaeologist and with Historic England if warranted. • Additional evaluation following detailed design will allow for preservation *in situ* of archaeological remains where reasonably practicable. Where not reasonably practicable, a strategy for archaeological recording will be implemented to preserve the remains impacted by record; and • Suitable buffer zones of a minimum of 5m will be installed around the sensitive archaeological areas identified prior to construction start. Where non-intrusive trenching methods are required for cable routes, a strategy will be developed which will detail the monitoring of this, and it will include an action plan detailing the required mitigation in the event that there is any breakout in the vicinity of known archaeological remains. During construction of the cable route, non-intrusive methods used will require the use of drilling fluids, which may contain bentonite. Leakage of bentonite slurry used in the drilling process will have the potential to spread into and coat archaeological deposits, features and materials under which the drill will pass. The following measures will be adopted to avoid leakage and to minimise any potential impacts during construction: • Bentonite will be stored in waterproof bags on site under tarpaulin; • Personnel monitoring the drilling will be equipped with two-way radios for instant communication with the drilling control cabin, so that the pumping of drilling fluids can be stopped immediately should any leakage occur;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Should the fluid loss be to the surface, then the mud will be contained by constructing a bund. Sand bags will be available on site for this; • The excess fluid will be either removed by way of a slurry tanker, or pumped back to the pit through a mud (bentonite) recycling pit; and • All returned slurry will be treated and cleaned using the on-site mud (bentonite) recycling system. Mitigation measures to be adopted during construction to mitigate the temporary impacts on the setting of below ground scheduled monuments and other built heritage assets from increased visual and noise intrusion are set out in **Table 3-5** and **Table 3-6**.		

Table 3-3 Biodiversity

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Potential for obtrusive glare and light spill to impact on ecology. Potential for spillages to enter watercourses and impact ecology. Clearance or damage of habitat to facilitate construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species. Dust deposition on sensitive ecological receptors. Loss of an area of grassland within the Order limits which will be utilised as the construction laydown area, alongside removal	**Mitigation through Scheme design** ***Outline Landscape and Ecology Management Plan (OLEMP)*** The Outline Landscape and Ecology Management Plan (OLEMP) provided in **Appendix 10I** of this Environmental Statement **[APP-108]** sets out the measures proposed to mitigate the potential impacts and effects of the Scheme on biodiversity (and landscape) features, and to enhance the biodiversity, landscape and green infrastructure value of the land within the Order limits. There may be a requirement or preference for more than one Landscape and Ecology Management Plan (LEMP), and this will be determined by the appointed contractor once the detailed programme is known. A final LEMP, which will be prepared in accordance with the principles of **Appendix 10I: OLEMP** of this Environmental Statement **[APP-108]**, will be submitted to and approved by the relevant planning authority prior to construction. The Scheme will avoid, as far as reasonably practicable, areas of high-quality habitat, such as mature trees and woodland/wetland habitats associated with Local Wildlife Sites (LWS) surrounding the Order limits. Retained trees adjacent to construction working areas will be protected by clearly defined root protection zones to prevent damage/compaction of roots/soil by plant and other machinery. Details on the areas and types of habitat included within the Scheme design are provided within **Appendix 10I: OLEMP** of this Environmental Statement **[APP-108]**. Measures proposed in the OLEMP to protect and enhance biodiversity and habitats include: • Biodiversity and habitat protection, management and impact avoidance requirements including updated surveys, protected species licences, clerk of works, tree works, precautionary working methods and animal welfare requirements; • Measures proposed to enhance existing scrub, reedbed, grassland and hibernacula and habitat piles and tree planting; and	A pre-construction site walkover will be undertaken in advance of mobilisation/any potential advance works to re-confirm the ecological baseline conditions and to identify any new ecological risks. Updated species surveys, including bats, great crested newt, breeding birds, otter, water vole and badger, will be completed as appropriate to re-confirm the status of protected species identified, to inform mitigation requirements and support protected species licence applications, if required by Natural England.	The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
of vegetation present within the Order limits. Potential to spread invasive non-native species within the Order limits.	• An implementation timetable for maintenance and management, including measures to protect, manage and enhance habitats. The perimeter security fence around the Scheme will be implemented early in the construction phase to secure the Order limits. The fence design will include gaps to allow mammals to pass underneath at strategic locations. The gaps in the external fencing of 100-150 mm will be maintained to allow access badgers, hares and other wildlife to access the construction site. Gaps will need to be created around the perimeter of the site with a gap provided at least every 200m. This will be verified by the ECoW team during the inspection of the ecological mitigation areas fencing and subsequently gaps will be checked during regular ecological monitoring. The presence and location of gaps for mammals will be identified within an Ecological Inspection Proforma (EIP) prepared by the Ecologist team once the gaps have been created and used as evidence of completion of work. The periodic inspection of the mammal gaps should be recorded within the ecologists EIP. This fence will also prevent construction activity in proximity to retained vegetation, in particular designated sites (County Wildlife Sites) within and adjacent the Order limits and where required specific tree protection measures will be implemented, including fencing and construction exclusion zones. Existing designated sites within the Order land will be avoided and measures embedded within the Scheme design will ensure that they are not affected during construction e.g. through siting construction routes away from designated sites and buffer zones. ***Stone Curlew*** The Scheme design has embedded sufficient land to offset any potential reduction in arable farmland, that may, in any given year, be used by Stone Curlew. A maximum of ten 2ha nesting plots will be created across Sunnica East Sites A and B, in fields where Stone Curlew have been recorded during surveys. Plots will be a minimum of 100m apart. Various cultivation techniques will used to create a rough tilth and/or areas of bare ground, depending on ground conditions and other environmental factors or constraints. The new plots will be provided in advance of the loss of any existing habitat. This will mean that the new plots will be to be available in the breeding season prior to construction commencing.	the Council(s) and ECoW team. This is proposed to be secured by a Requirement of the draft DCO. Such surveys will be undertaken sufficiently far in advance of construction works to account for seasonality constraints and to allow time for the implementation of any necessary mitigation, prior to construction. Additional surveys may be required during the advance works, site clearance and construction phase as advised by the ECoW team, based on the findings of the updated walkover and protected species surveys, or otherwise as identified as	

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	Nesting plots will be created and managed in line with the RSPB information Note 'Managing nest plots for stone-curlews' (Ref 19) and the Countryside Stewardship Higher Tier 'AB4: Nesting plots for stone curlew' guidance note (Ref 20). Approximately 108ha of predominantly arable farmland have been embedded within the Scheme for reversion to grassland, specifically managed to create a close-cropped sward, suitable for Stone Curlew. Small areas of existing acid grassland have also been retained within the Scheme design in Sunnica East Site B and these will form the basis of reverting adjacent areas in Sunnica East Site B to semi-natural grassland. Within Sunnica East Site A the offsetting area will be sown with a chalk grassland mix and managed specifically for Stone Curlew, i.e. maintaining a close-cropped sward. The plots will be retained within these established grassland areas for the lifespan of the project. Construction will be phased so that areas within 500m of the new habitat provisions are developed outside the Stone Curlew breeding season of March to October and that the replacement provisions are ready for use by Stone Curlew by the breeding season at the start of construction. Pre-commencement surveys for Stone Curlew will be undertaken in advance of the works commencing. Monitoring should be undertaken of the Stone Curlew offsetting areas and the condition of these habitats, in the context of providing optimal nesting and foraging habitat. The monitoring should additionally include those areas within 500m of the construction site where there is suitable nesting habitat during the breeding season. All construction staff working within Sunnica East Sites A and B will also be given a toolbox talk regarding the sensitivity of Stone Curlew. **Ecological Clerk of Works** • A team of licensed Ecological Clerk of Works (ECoW) will be employed/contracted to advise on relevant environmental commitments, the findings of the updated surveys, protected species licencing requirements and with reference to the relevant project programmes; • Immediately prior to site clearance and the start of construction in each relevant part of the Order limits, further site walkover surveys will be undertaken by an	appropriate by the Applicant or their appointed contractor.	

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	ecologist to confirm whether the risks remain as previously assessed and/or to confirm the correct implementation of impact avoidance measures (e.g. protected species stand-offs). The scope of the required walkovers will be defined on a case by case basis, in consultation with the project team, ECDC and WSC or other relevant statutory consultees as necessary, based on the specific risks; • Relevant site staff will receive toolbox talks on the ecological risks present, legal requirements and working arrangements necessary to comply with legislation. Toolbox talks will be repeated as necessary over the duration of the relevant works; and • A display board will be installed on-site and a website will be set up. These will include contact details for the Site Manager or alternative public interface with whom nuisance or complaints can be lodged. A log book of complaints will be prepared and managed by the Site Manager. • At the outset of construction and every month thereafter during the construction phase the ECoW team will inspect the site to ensure the compliance with the CEMP. This will include checking: – correct installation of fencing; – safeguarding ecological mitigation areas; – hedgerow and woodland condition; – implementation of precautionary site maintenance measures. • However, when the works take place within close proximity of any CWS sites, the ECoW team will inspect these areas every week. **Working Methods to avoid and minimise impacts on protected/ notable species and existing habitats** The following precautionary working methods will be employed to minimise potential adverse effects on protected/notable species prior to, and during, construction:		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Measures to prevent and minimise dust creation and air pollution will be adopted throughout construction. Please refer to **Table 3-9** for the measures employed to minimise effects on air quality; • Measures to prevent pollution incidents will be adopted throughout construction. Please refer to **Table 3-4** for the measures employed to avoid pollution events with respect to water quality; • Measures to minimise effects on ecology from noise and vibration will be adopted throughout construction. Please refer to **Table 3-6** for the measures employed to minimise noise and vibration; • Pre-construction surveys will be undertaken to validate and, if necessary, update the baseline habitat survey findings and to update on the presence and location of invasive species to inform the implementation of measures to prevent the spread; • Precautionary working method statements, informed by the CEMP(s), will be produced by the appointed contractor to specify working requirements and other impact avoidance measures. These will be controlled and implemented through the CEMP(s); • Retained trees adjacent to construction working areas will be protected by clearly defined root protection zones to prevent damage/compaction of roots/soil by plant and other machinery; • Vegetation clearance will be undertaken in advance of construction and at an appropriate time of year (ideally in September or October, concordant with the requirements for avoidance of nesting birds) so as to avoid incidental injuring or killing of reptiles and amphibians. There will be no need to undertake any relocation of reptiles; • Where reasonably practicable, vegetation clearance works will be undertaken outside the bird breeding season, which is generally between March and August inclusive. Where this is not reasonably practicable, an ecologist will inspect all areas of vegetation prior to clearance, and clearance will only be undertaken subject to the instruction and requirements of the ecologist to protect any birds and their nests;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• The vegetation should then be kept short to displace any present amphibians, which may be present, away from the works when they emerge in the early spring, and discourage amphibians from moving into the site from the surrounding habitat; • Reasonable avoidance measures will be used during clearance of any habitat suitable for reptiles, to minimise the risk of direct impacts including phased clearance of vegetation to gradually reduce suitability for reptiles, thereby encouraging animals to move away from affected areas into adjacent suitable habitat; • Cleared ground will be maintained in a disturbed state in the run-up to construction commencing to minimise the risk of ground nesting birds attempting to nest on cleared ground; • Preparation of mitigation strategies for protected species and where required, application for species licences from Natural England for translocation of animals away from construction areas sufficiently in advance of the works to meet with the optimum time for mitigation and to minimise any changes to the construction programme; • Implementation of measures to avoid animals being injured or killed within construction working areas, through excluding them from such areas and preventing them falling into and becoming trapped in excavations; • Precautionary measures will be implemented to prevent trapping wildlife in construction excavations. All excavations deeper than 1m will be covered or fenced overnight, or where this is not practicable, a means of escape will be fitted (e.g. battened soil slope or scaffold plank) to provide an escape route should any animals stray into the construction site and fall into an excavation; • Reasonable avoidance measures to avoid impact on badgers and bats will be employed, including buffers of 30m around any identified badger setts and 15m buffer around trees with bat roost potential; • A 30m buffer zone will be applied to the Havacre Meadows and Deal Nook County Wildlife Site;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	~~• One badger sett (identified in Annex A of **Appendix 8K** of this Environmental Statement **[APP-090]**) may be impacted as a result of cabling works within the Burwell National Grid Substation The following measures will be undertaken:~~ ~~– Prior to works commencing on site an updated badger survey and bait marking surveys will be undertaken across the entire Order limits to check for any changes to the status of any other setts and ensure up to date information on badger activity at the sett;~~ ~~– Vegetation (including topsoil) should be carefully removed using an excavator using a toothed bucket. These works should be supervised by a suitably qualified and experienced ecologist if this is deemed appropriate to do so;~~ • Any habitat features which may conceal sheltering amphibians (log piles, rubble mound bunds, any other debris etc.) will be dismantled by hand under supervision of the suitably qualified and experienced ecologist; • Dismantling of any on-site rubble piles should be conducted during the amphibian active season (i.e. April to October) during warm weather conditions (i.e. above 5°C) to avoid killing or injuring potential hibernating amphibians; • In the unlikely event that any Great Crested Newt are discovered during these works, then such works must cease immediately and a SQE must be consulted to determine how to proceed. If other amphibians are discovered during vegetation clearance it is proposed that these are translocated to suitable habitat nearby in suitable weather conditions; • Avoidance of construction traffic through designated sites. Specifically, construction staff vehicles will be discouraged from using Turnpike Road during construction to minimise air quality impacts on the Red Lodge Heath Site of Special Scientific Interest (SSSI); • The principal contractor will work with landowners along the cable route to plan the excavation in an appropriate manner to minimise the risk to horses from Grass Sickness; • The construction of the Scheme will not directly impact Badlingham Lane CWS, Worlington Heath CWS or Chippenham Avenue Fields CWS. Security fencing will		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	be put in place prior to construction to ensure incursion during construction doesn't occur. Standard environmental protection measures will be implemented and adopted during construction, including dust suppression (Table 3-9) and pollution prevention (see Table 3-4). • With the exception of the Badlingham Lane CWS (specifically on the U6006), no trees within these CWSs will be removed. On the U6006, whilst impacts cannot be conclusively avoided at this stage, they will be sought to be minimised as far as possible – the final position to be reported in the Arboricultural Report discussed below. ~~Impacts on Badlingham Lane, along U6006, CWS will be minimised as far as possible.~~ • The construction of the Scheme for the Grid Connection will utilise non-intrusive methods for crossing the Havacre Meadows and Deal Nook Country Wildlife Site (CWS), including the River Kennett and its banks. The send/receive pit for this crossing will be located at least 30 m away from the CWS, and the cables will be installed (drilled) at a depth of at least 2m below the bed of the River Kennett. Boundary vegetation, such as hedgerows connecting woodland sites will be retained. Intrusive crossing of Havacre Meadows and Deal Nook County Wildlife Site (CWS), including the River Kennett and its banks will not be permitted. • The crossing of watercourses where the presence of Otter and Water Vole have been determined, as well as the River Kennett, River Snail, Lee Brook, New River and Burwell Lode, will be undertaken using boring, micro-tunnelling or moling methods, with appropriate setbacks from the top of the banks (depending on habitats and other individual ecological constraints). A full list of crossing methods and an explanation of these techniques is provided in **Chapter 3: Scheme Description** of this Environmental Statement **[REP2-022];** and • Where temporary metal bridges to cross watercourse are required these will be located in suitable locations, avoiding Water Vole burrows and where there will be minimal impact to the channel. They would be of a clear span design, and reinstatement would take place following removal of the temporary bridges. The works would be carried out according to good industry practice methods.		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	Biosecurity An Invasive Species Management Plan which sets out procedures to ensure any imported building/landscaping materials are free from invasive non-native species (e.g. Schedule 9 species) will be prepared. This will ensure: • No permanent above ground infrastructure will be within 10m of watercourse banks; • Pre-commencement surveys for invasive species will be undertaken in advance of the works commencing; • In the event that any future infestations of invasive non-native species are identified prior to and, or during the development process, exclusion zones will be established around them and the ECoW team contacted for advice as detailed; and • Where invasive non-native species have been identified, e.g. Lee Brook, no in-channel works will be undertaken to avoid the spread of invasive non-native species. These works will be monitored by the ECoW team. **Lighting** Controls on lighting/illumination to minimise visual intrusion and potential adverse effects on sensitive ecology, such as bats, will be considered as far as reasonably practicable and will be designed to be aligned with Bat Conservation Trust guidance as far as is reasonably practicable. Details of bat flight lines and suitable habitat is provided within **Chapter 8** of this Environmental Statement **[APP-077]**; these areas will be identified prior to construction and controls on lighting and illumination will be implemented. Temporary construction site lighting will be designed as far as reasonably practicable so as to minimise artificial light spill from the site. Lighting will be kept to a minimum during construction works. Construction working hours will be 7am until 7pm Monday to Saturday and during construction in the winter months, mobile lighting towers with a power output 8kVAs will be used. Any lighting required during the construction phase will be directed away from retained habitats and include hoods or cowls to direct light forwards into the construction areas.		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	Throughout the Scheme, the use of motion detection security lighting to avoid permanent lighting is embedded in the Scheme design and the inward distribution of light will avoid light spill on to existing boundary features. **Habitat Restoration** Habitats to be temporarily lost or damaged during construction will be fully reinstated on a like-for-like basis at the same location on completion of construction works, where practical. Some habitats will be restored and managed with the aim of increasing their biodiversity value in the long-term as set out within **Appendix 10I: OLEMP** of this Environmental Statement **[APP-108]**. As described above, Stone-curlew nesting plots will be created in advance of construction commencing.		

Table 3-4 Flood Risk, Drainage and Water Resources

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Leakage or accidental spillage of construction materials and potential pollutants used on-site, migrating to nearby surface watercourses or infiltrating to groundwater. Any flooding during construction could flood construction equipment and/materials, causing release of pollutants to nearby surface watercourses or infiltrating to groundwater. Risks associated with the use of drilling fluids for non-intrusive techniques for cable route construction.	**General** The contractor will comply with: • Guidance for Pollution Prevention (GPP) 2 Above ground oil storage tanks (Ref 3); • GPP 4 Treatment and disposal of wastewater where there is no connection to the public foul sewer (Ref 4); • GPP 5 Works and maintenance in or near water (Ref 5); • GPP 8 Safe storage and disposal of used oils (Ref 6); and • GPP 21 Pollution incident response planning (Ref 7). Requirements set out in the above guidance will be listed in or appended to the CEMP(s). A Water Management Plan (WMP) will be prepared to document the mitigation measures to be implemented to protect the water environment from adverse effects during construction. Local watercourses are shown in **Chapter 9: Flood Risk, Drainage and Water Resources** of this Environmental Statement **[APP-041]**. **Management of Construction Site Runoff** Mitigation measures are described in detail below and will be adhered to during the construction of the Scheme. The measures outlined below will be required for the management of fine particulates in surface water runoff as a result of the construction activities: • All reasonably practicable measures will be taken to prevent the deposition of fine sediment or other material in, and the pollution by sediment of, any existing watercourse, arising from construction activities. The measures will accord with the principles set out in industry guidelines including the CIRIA report 'C532: Control of water pollution from construction sites' (Ref 8) and CIRIA report C649 Control of	Temporary drainage will be monitored throughout construction. Specific details will be confirmed in CEMP(s)	Staff training will be undertaken by the contractor. Storage of materials, and disposal and discharge of site runoff will be managed by the contractor. Specific responsibilities to be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	water pollution from linear construction sites' (Ref 9). Measures may include use and maintenance of temporary lagoons, tanks, bunds and fabric silt fences or silt screens as well as consideration of the type of plant used; • A temporary drainage system will be developed to prevent runoff contaminated with fine particulates from entering surface water drains without treatment. This will include identifying all land drains and waterbodies within the Order limits and ensuring that they are adequately protected using drain covers, sand bags, earth bunds, geotextile silt fences, straw bales, or proprietary treatment (e.g. lamella clarifiers); ▪ The contractor shall ensure that existing field drainage systems are not compromised as a result of construction. Field drainage systems will be maintained during construction and reinstated so far as reasonably practicable to a condition that is as effective as the previous condition on completion. ▪ The contractor will coordinate drainage surveys to establish the existing drainage position including any related field drainage that may be affected by the Scheme and these will be marked where encountered. The Contractor shall record the location, condition and characteristics (e.g. depth of installation, pipe type and diameter) of drains cut or disturbed by construction of the Scheme. ▪ Any field drainage affected by the Scheme shall be either reinstated or diverted to secondary channel if reasonably practicable. Landowners and occupiers shall be informed, through the Agricultural Liaison Officer, of the design and timing of drainage works required during construction and following completion of the Works, including, where relevant, in relation to pipe layout, falls, dimensions and outfalls. ▪ Any temporary drainage to be installed shall maintain the integrity of the existing field drainage system during construction. Landowners and occupiers shall be provided with the opportunity to inspect land drainage works as they progress, subject to health and safety and construction considerations. Records of the existing and remedial drainage to be maintained with copies provided to the landowner and occupier following completion of the construction		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• ~~Any existing field drainage systems will be identified and diverted or redirected as necessary and an Agricultural Liaison Officer will be appointed to facilitate discussions with landowners;~~ • Scheme construction drainage would provide appropriate pollution control measures. Holding or settling tanks, separators and other measures as may be required, would be provided and maintained; • The relevant sections of BS 6031: Code of Practice for Earthworks (Ref 10) will be followed for the general control of site drainage; • Where practical, earth works will be undertaken during the drier months of the year. When undertaking earth moving works periods of very wet weather will be avoided, where practical, to minimise the risk of generating runoff contaminated with fine particulates. However, it is likely that some working during wet weather periods will be unavoidable, in which case other mitigation measures (see below) will be implemented to control fine sediment laden runoff. Water may also be required to dampen earthworks during dry weather to reduce dust impacts, and any runoff generated will need to be appropriately managed by the contractor in accordance with the pollution prevention principles; • To protect watercourses from fine sediment runoff, topsoil/subsoil will be stored a minimum of 20m from watercourses on flat lying land. Where this is not practicable, and it is to be stockpiled for longer than a two-week period, the material will either be covered with geotextile mats, seeded to promote vegetation growth, or runoff prevented from draining to a watercourse without prior treatment; • Appropriately sized runoff storage areas for the settlement of excessive fine particulates in runoff will be provided. Construction site runoff will either be treated on site and discharged under a water discharge activity permit from the Environment Agency to controlled waters (potentially also including infiltration to ground); • Equipment and plant are to be washed out and cleaned in designated areas within the site compound where runoff can be isolated for treatment before disposal as outlined above;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Mud deposits will be controlled at entry and exit points to the site using wheel washing facilities and / or road sweepers operating during earthworks activities or other times as required; • Debris and other material will be prevented from entering surface water drainage, through maintenance of a clean and tidy site, provision of clearly labelled waste receptacles, grid covers and the presence of site security fencing; and • The WMP will include details of pre, during and post-construction water quality monitoring. This will be based on a combination of visual observations and reviews of the Environment Agency's automatic water quality monitoring network. **Management of Spillage Risk** The measures outlined below will be implemented to manage the risk of accidental spillages on site and potential conveyance to nearby waterbodies via surface runoff or land drains. The following mitigation measures relating to the control of spillages and leaks will be adopted during the construction works: • Fuel will be stored and used in accordance with the prevailing regulations; currently the Control of Substances Hazardous to Health Regulations 2002 (Ref 11), and the Control of Pollution (Oil Storage) (England) Regulations 2001 (Ref 12). Particular care will be taken with the delivery and use of concrete and cement as it is highly corrosive and alkaline; • Fuel and other potentially polluting chemicals will either be in self bunded leak proof containers or stored in a secure impermeable and bunded area (minimum capacity of 110% of the capacity of the containers); • Any plant, machinery or vehicles will be regularly inspected and maintained to ensure they are in good working order and clean for use in a sensitive environment. This maintenance is to take place off site if possible or only at designated areas within the site compound. Only construction equipment and vehicles free of all oil/fuel leaks will be permitted on site. Drip trays will be placed below static mechanical plant; • It is considered unlikely that the Scheme will require a high number of trips requiring the transportation of hazardous loads; however, all vehicles carrying hazardous		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	loads during construction will be required to follow the regulations set out in the Health and Safety Executive's (HSE) Carriage of Dangerous Goods (Ref 13); • Drivers must ensure that hazardous loads are always accompanied by a transport document which sets out detailed information on the load being carried, including full classification of any substances carried and how to package them; the transport document must include: – Information for each dangerous substance, material or article being carried; – Emergency instructions in writing; and – Means of identification, including a photograph of each member of the vehicle crew. • All drivers of vehicles carrying hazardous loads must be appropriately trained, so that they: – Are aware of the hazards in the carriage of hazardous loads; – Can take steps to reduce the likelihood of an incident taking place; – Can take all necessary measures for their own safety and that of the public and the environment to limit the effects of any incident that does occur; and – Have individual practical experience of the actions they will need to take. • All washing down of vehicles and equipment will take place in designated areas and wash water will be prevented from passing untreated into watercourses; • All refuelling, oiling and greasing will take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses, and away from drains as far as reasonably practicable. Vehicles will not be left unattended during refuelling; • As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses; • All fixed plant used on the site will be self-bunded;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Mobile plant is to be in good working order, kept clean and fitted with plant 'nappies' at all times; • The WMP will include details for pollution prevention and will be prepared and included alongside the CEMP(s). Spill kits and oil absorbent material will be carried by mobile plant and located at high risk locations across the Order limits and regularly topped up. All construction workers will receive spill response training and tool box talks; • The site will be secure to prevent any vandalism that could lead to a pollution incident; • Construction waste / debris are to be prevented from entering any surface water drainage or water body; • Surface water drains on public roads trafficked by plant or within the construction compound will be identified and, where there is a risk that fine particulates or spillages could enter them, the drains will be protected (e.g. using covers or sand bags) or the road regularly cleaned by road sweeper; • Suitable facilities for concrete wash water (e.g. geotextile wrapped sealed skip, container or earth bunded area) will be adequately contained, prevented from entering any drain, and removed from the Site for appropriate disposal at a suitably licenced waste facility; and • Water quality monitoring of potentially impacted watercourses will be undertaken to ensure that pollution events can be detected against baseline conditions and can be dealt with effectively. In addition, any site welfare facilities will be appropriately managed, and all foul waste disposed of by an appropriate contractor to a suitably licenced facility. **Watercourse Crossings with Non-Intrusive Techniques** Measures to be implemented while using non-intrusive techniques to install the cable route are set out below. See **Table 3-2** above for further details of mitigation that should be implemented during non-intrusive drilling works.		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Non-intrusive crossing techniques will ensure a headroom of at least 2m below the bed of a watercourse • Any wastewater / drilling products which are not recycled must be stored and removed from the site by a suitable waste management contractor and disposed of at a licenced wastewater facility. • Where any leakage of bentonite water is observed in the watercourse during non-intrusive drilling techniques for the installation of the cable corridor, or there is an increased perceived risk (i.e. lack of drilling mud returns), the cable drilling operation must be suspended, remediation action implemented, and subsequently the methodology for that crossing re-evaluated. • The temporary metal bridges would be located in suitable locations where there will be minimal impact to the channel, of a clear span design, and reinstatement would take place following removal of the temporary bridges. The works would be carried out according to good industry practice methods. **Water Crossings with Intrusive Techniques** Following construction, reinstatement of trenched channels will aim to provide an improved channel form with enhancement works to be carried out (where relevant and appropriate to do so) between 5 and 10m upstream and downstream of the open trench. It is anticipated that enhancements will consist of soft engineering techniques and improvements to the riparian corridor to improve channel diversity and biodiversity. These will be included within a Water Framework Directive (WFD) Mitigation Strategy, which will be produced to accompany the CEMP. Measures to be implemented while using intrusive techniques to install the cable route are set out below: • A pre-works hydromorphological survey must be undertaken to record channel features and provide the baseline, against which reinstatement will be designed; • Where possible intrusive watercourse crossings will be carried out during drier periods of the year or during a period of dry weather where flows in the watercourse are low (this may be baseflow or where the channels are very small and not as well connected to groundwater, they may even be dry). However, this cannot be		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	guaranteed and this so any water flow within the watercourse would need to be over-pumped/flumed through the works area to maintain a dry trench and to reduce pollution risks; • Bank and bed sediments must be stored separately and is in distinct layers as excavated on geotextile layers so they can be reinstated as found following completion of the works; • The banks and the bed will need to be appropriately reprofiled with the inclusion of suitable geomorphic features with the aim to provide betterment on the original channel. Banks will be replanted with suitable riparian species; • A suitable geotextile will need to be pinned in place to provide bank protection while new planting establishes (or other suitable measures provided to prevent soil erosion and bank instability); and • Temporary fencing may also need to be installed where local land use will remain unchanged and fields are used for livestock (to prevent bank poaching). **Management of Risk to Morphology of Waterbodies** A pre-works morphology survey of the channel of each watercourse to be crossed by high voltage cables using intrusive and non-intrusive techniques will be undertaken. This is to ensure there is a formal record of the condition of each watercourse prior to commencement of works to install cables beneath the channel. The survey is a precautionary measure so that, should there be any unforeseen adverse impacts, there is a record against which any remedial action can be determined. All works during construction of the Sites and the non-intrusive crossings for the cable corridor will be undertaken at least 10m away from watercourses. All Scheme equipment will be located and constructed at least 10m away from watercourses. The water supply to be used for dust suppression will be determined by the contractor. The contractor will ensure the use of a suitable water supply, which may be from an agricultural irrigation reservoir or other potable supply but will not be abstracted from local watercourses. For the access track crossing over the Tributary of the River Lark between E01 and E02, a clear span structure will be designed for the watercourse crossing by the access		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	road, to minimise impacts to the channel bed, banks and watercourse continuity. There may be an option for an alternative access route to avoid the watercourse or cross at a location further upstream, that will be considered during detailed design. ~~For the access crossing of the Tributary of the River Snail (W1 – please refer to Figure 3-23 of this Environmental Statement **[APP-166]** for a plan showing cable route crossing labels), an enhancement length of 14m is proposed to offset the loss of habitat from the creation of a new culvert. This culvert will be approximately 7m long and its impact would be mitigated through inclusion of a buried culvert base and natural bed, maintaining a continuous gradient with the current watercourse, and sizing the culvert so that it will not impact flow velocities or back up flood flows.~~ **Management of Flood Risk** The CEMP(s) will incorporate measures aimed at preventing an increase in flood risk during the construction works. Examples of measures that will be implemented on site include: • Topsoil and other construction materials will be stored outside of the 1 in 100 year floodplain extent. If areas located within Flood Zone 2 are to be utilised for the storage of construction materials, this will be done in accordance with the applicable flood risk activity regulations, if required; • Connectivity will be maintained between the floodplain and the adjacent watercourses, with no permanent changes in ground levels within the floodplain; • During the construction phase, the contractor will monitor weather forecasts on a monthly, weekly and daily basis, and plan works accordingly. For example, works in the channel of any watercourse will be avoided or halted were there to be a significant risk of high flows or flooding; • The construction laydown area site office and supervisor will be notified of any potential flood occurring by use of the Floodline Warnings Direct or equivalent service; • The Scheme's drainage systems will be designed so that there will be no increases in flood risk downstream during storms up to and including the 1 in 100 (1%) annual probability design flood, with an allowance of 40% for climate change;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• SuDS features will be utilised to ensure the surface water drainage strategy adequately attenuates and treats runoff from the Sites, whilst minimising flood risk within the Sites and surrounding areas; and • No part of the authorised development (except for Work No. 4) would be located within fluvial Flood Zone 3b extents, although part of the Order limits includes land in this flood zone. There may be solar PV modules within Flood Zone 3a and 2, however these would be raised on higher struts to mitigate any flood risk to them. The detailed design would determine the various heights required, which are recommended to be at least 850mm. • No Solar Stations will be located within Flood Zone 3a or 3b. • The construction of SuDS features should be implemented and then fenced off around access and compound areas to prevent being tracked and compacted. Consideration will be made to Chapter 29 (Landscape) and Chapter 31 (Construction) and of the CIRIA C753 SuDS Manual for soil compaction and mitigation practices. Methods of mitigation and avoidance of compaction will be detailed in contractor method statements will be included in the CEMP. • All temporary construction compounds will be located outside areas of fluvial flood zones 2 and 3 including allowances for climate change. • During construction any temporary access crossings of watercourses would be temporary steel structure overbridges. No temporary culverting would be required for such crossings. As part of the CEMP the appointed contractor will be required to produce an Emergency Response Plan which will provide details of the response to an impending flood and include: • A 24-hour availability and ability to mobilise staff in the event of a flood warning; • The removal of all plant, machinery and material capable of being mobilised in a flood for the duration of any holiday close down period where there is a forecast risk that the site may be flooded; • Details of the evacuation and site closedown procedures;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Arrangements for removing any potentially hazardous material and anything capable of becoming entrained in floodwaters, from the temporary works areas; • The appointed contractor will sign up to Environment Agency flood warning alerts and describe in the Emergency Response Plan the actions it will take in the event of a flood event occurring. These actions will be hierarchal meaning that as the risk increases the contractor will implement more stringent protection measures; • If water is encountered during below ground construction, suitable de-watering methods will be used. Any groundwater dewatering required in excess of the exemption thresholds will be undertaken in line with the requirements of the Environment Agency (under the Water Resources Act 1991 as amended) (Ref 14) and the Environmental Permitting Regulations (2016) (Ref 15); and • Safe egress and exits are to be maintained at all times when working in excavations. When working in excavations a banksman is to be present at all times.		

Table 3-5 Landscape and Visual Amenity

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Loss of existing landscape features, e.g. vegetation Visibility of construction activities	The OLEMP (**Appendix 10I** of this Environmental Statement **[APP-108]**) sets out the measures proposed to mitigate the potential impacts and effects on landscape (and biodiversity) features, and to enhance the landscape and biodiversity value of the Order limits (i.e. the green infrastructure). A LEMP will be prepared in accordance with the OLEMP following detailed design and prior to construction start. The layout of habitat and landscape planting is shown in Figures 3-1 and 3-2 and the **Works Plans [REP2-005]**. The CEMP(s) will be required to take into account measures contained within the OLEMP and the LEMP approved pursuant to it and includes measures such as construction exclusion zones in relation to retained vegetation, ensuring a tidy and neat working area, covering stockpiles, hoardings in a suitable colour to aid their integration in the landscape and storing topsoil in accordance with best practice measures. Landscape and biodiversity management and enhancement measures including replacement tree and hedgerow planting will be implemented during and/or following construction. The CEMP will explain how hedgerows which are to be retained shall be protected, retained and maintained during the construction phase. The perimeter security fence around the Scheme will be implemented early in the construction phase to secure the site to prevent construction activity in proximity to retained vegetation, in particular designated sites within and adjacent to the Order limits and, where required by arboricultural surveys, specific tree protection measures will be implemented, including solid hoarding fencing and construction exclusion zones. The design has ensured careful consideration of the access points to limit the loss of vegetation at access points and the number of field boundary crossings. Where access and crossings are necessary, they have been carefully aligned to pass through the field access points and hedgerows where it would have the minimal impact on mature trees. The width of the access points will be minimised as far as possible to retain the landscape structure and habitat connectivity. All access points will be re-instated to their condition prior to the construction.	A pre-construction arboriculture survey in line with BS5837:2012 (Ref 16) will be undertaken in advance of the detailed design of the Scheme, to identify where trees are likely to be affected by the construction works and to inform the development of the detailed design. Such pre-construction surveys will be undertaken in accordance with the OLEMP. The report will demonstrate that the impacts adhere with the conclusions in the ES.	The LEMP will set out roles and responsibilities for implementation.

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	Landscape, arborists and/or the ECoW teams will ensure that the landscape and ecology requirements of the CEMP(s) are adhered to and that the construction works are monitored. Any compaction of soils that has occurred from the use of heavy machinery during construction will be aerated prior to landscape planting. **Tree and Hedgerow Works** An Arboricultural Impact Assessment has been produced **[EN010106/APP/8.46]** which identifies the likely maximum extent of tree loss by quality category to facilitate the Scheme. As part of discharging Requirement 6 of the draft DCO updated tree surveys will be carried out for any areas where arboricultural impacts are likely and where no detailed survey information has been captured to date. All preliminary management recommendations identified by detailed tree surveys in relation to trees to be retained will be carried out unless otherwise agreed in writing with the Local Planning Authority. All drainage proposals will be designed to avoid the RPA of trees to be retained. A final Arboricultural Report which will set out the final extent and location of arboricultural and hedgerow impacts will be prepared and submitted to the Local Planning Authority as part of the detailed CEMP. The Arboricultural Report will also explain how impacts to the TPO trees identified as being impacted by the Arboricultural Impact Assessment have been minimised as far as reasonably practicable. Impacts to trees which form part of the tree avenue within the Registered Park and Garden of Chippenham Hall will be avoided, either by micrositing the Scheme works (except for access road) around them, or through implementing HDD or similar non-intrusive tunnelling techniques. If required, the access road would be designed so that its foundation does not impact the root system of any trees within the avenue. The final proposals in this regard will be set out in the Arboricultural Report.		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	~~One surveyed veteran tree (T143) is proposed to be lightly pruned to facilitate access to Sunnica West Site B. This tree also requires remedial safety works in the interests of highway safety regardless of the Scheme.~~ Should any unsurveyed veteran or ancient trees be identified as part of the additional detailed tree surveys the design and construction methodology will be updated as necessary to ensure they are not impacted, which will be reflected in the Arboricultural Report. The Scheme will be designed and constructed to avoid impacts to trees within the Chippenham Park , which will be reflected in the Arboricultural Report. A Precautionary Arboricultural Method Statement (PAMS) has been produced and is provided in **Appendix 10B** of this Environmental Statement **[APP-101].** The PAMS identifies the specification for tree protection measures and the methodology for sensitive works in proximity to retained trees during construction. A pre-construction tree survey will be undertaken where construction works are likely to affect trees. The findings of this will be included within an Arboriculture Report, which will be accompanied by a detailed Arboricultural Method Statement which will set out mitigation and protection measures to be undertaken. These reports will build on the PAMS provided in **Appendix 10B** of this Environmental Statement **[APP-101] and the Arboricultural Impact Assessment [EN010106/APP/8.46]**. The findings and recommendations of these will be ~~taken into account~~ carried out and implemented by the appointed contractor. Where works in close proximity to retained trees cannot be practically avoided, these works will be undertaken in accordance with current best practice, defined in British Standard (BS) 5837: 2012 Trees in relation to design, demolition and construction – Recommendations and National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Ref 16). Tree pruning will be carried out following the principles of BS3998:2010 Treework – Recommendations (Ref 22). Where part of a group of trees is to be removed the final extent of tree loss will be determined on site by an arboriculturist following the setting out of the footprint of the scheme and any required working space. The Arboriculturist will uniquely identify trees to be removed and those to be retained (e.g. via marking trees on site with paint). Following		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	clearance works the arboriculturist will assess the suitability and stability of retained trees and record if any additional tree management is required. All necessary protective fencing or other required tree protection measures will be installed prior to the commencement of any site clearance or construction works. **Lighting** Temporary site lighting during construction required to enable safe working during construction in hours of darkness will be designed as far as reasonably practical so as not to cause a nuisance outside of the Order limits. Standard best practice measures will be employed to minimise light spill, including glare during construction. **Screening** Existing vegetation along the boundary of the Order limits will be retained and managed where practicable to ensure its continued presence and to aid the screening of low-level views into the construction site.		

Table 3-6 Noise and Vibration

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Vibration due to construction activities potentially causing annoyance at Noise Sensitive Receptors (NSR) and damage to building structures. Construction traffic, plant and machinery noise at nearby NSR.	Best Practicable Means (BPM) will be applied, as far as reasonably practicable, during construction works to minimise noise and vibration at noise sensitive receptors, including neighbouring residential properties and other sensitive receptors arising from construction activities. These include, as appropriate: • Ensuring that all appropriate processes, procedures and measures are in place to minimise noise before works begin and throughout the construction programme; • All contractors to be made familiar with current legislation and the guidance in BS 5228 (Parts 1 and 2) (Ref 17) which should form a prerequisite of their appointment; • Ensuring that, where reasonably practicable, noise and vibration is controlled at source (e.g. the selection of inherently quiet plant and low vibration equipment), review of the construction programme and methodology to consider quieter methods, consideration of the location of equipment on-site and control of working hours; • The Detailed CEMP will require that a Piling Method Statement will be produced and that the construction will be undertaken in line with the recommendations of that method statement. This will ensure the adoption of an appropriate method of piling to minimise noise. The Piling Method Statement will also include suggested working hours for piling works.; • Use of modern plant, complying with applicable UK noise emission requirements; • Hydraulic techniques for breaking to be used in preference to percussive techniques, where reasonably practicable; • Drop heights of materials will be minimised; • Unnecessary revving of engines will be avoided, and equipment will be switched off when not in use; • Plant and vehicles will be sequentially started up rather than all together; • Off-site pre-fabrication where reasonably practicable;	Section 61 consents will be obtained by the appointed contractor. Noise monitoring will be undertaken throughout construction. Requirements including monitoring locations and noise monitoring methods and frequency to be employed will be determined by the contractor and agreed pursuant to the section 61 (or any replacement statutory scheme) process. The CEMP will also set out a scheme for the provision of monthly reporting information to local residents to advise of potential noisy works that are due to take place. The CEMP will also set	To be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Use of screening locally around significant noise producing plant and activities. Screening would be designed to minimise landscape and visual impacts; • Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications; • All construction plant and equipment to be properly maintained, silenced where appropriate, operated to prevent excessive noise and switched off when not in use; • Loading and unloading of vehicles, dismantling of site equipment or moving equipment or materials around the Order limits to be conducted in such a manner as to minimise noise generation, as far as reasonably practicable; • All vehicles used on-site shall incorporate reversing warning devices as opposed to the typical tonal reversing alarms to minimise noise disturbance where reasonably practicable; • Appropriate routing of construction traffic on public roads and along access tracks pursuant to the final CTMP; • Provision of information to ECDC and WSC and local residents to advise of potential noisy works that are due to take place; • Section 61 Consents would be obtained for the Scheme which would include agreed construction noise limits for nearby noise sensitive receptors. The detailed CEMP will set out proposals for how consultation will take place with local authorities to agree a suitable schedule for S61 applications; • Noisy works will not be undertaken until after 10:00 hours in the Work Areas close to Snailwell Gallops in Sunnica West Site A, specifically W03, W04 and ECO5; • Monitoring of noise complaints and reporting to the Applicant for immediate investigation and action. A display board will be installed on-site and a website will be set up. These will include contact details for the Site Manager or alternative public interface with whom nuisance or complaints can be lodged. A log book of complaints will be prepared and managed by the Site Manager; and • Consideration will also be given to traffic routing, timing and access points to the Sites to minimise noise impacts at existing receptors following appointment of a principal	out a scheme for the monitoring of noise complaints and reporting to the Applicant for immediate investigation and action. Further details are to be confirmed in the CEMP(s).	

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	contractor, and as construction working methods are developed. Contractors will issue a project route map and delivery schedule to control construction traffic. Management of HGVs within the site and being let onto the highway network will be managed through the CTMP developed pursuant to the Framework CTMP. ~~• To minimise the impact of piling within W01 and W02, screw piles will be used for the solar panel mounting structure.~~ • As part of the Communication Strategy, engagement will be undertaken with equestrian groups, including the British Horse Society and local stakeholders on scheduling of construction activities with potential for generating high levels of noise in the vicinity of public rights of ways or other highways frequently used by horse riders. A point of contact will be available within the Contractor to liaise with the horse racing and training community and other neighbours. The Communication Strategy will also provide details of timings and durations of construction works.		

Table 3-7 Socio-Economics and Land Use

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Temporary loss of agricultural land Loss of trees and other vegetation Impacts on soil	The following measures will be implemented to address impacts on land use: • Appointment of an Agricultural Liaison Officer to facilitate communication with landowners within the Sites and along the cable corridors; • Agricultural soils will be managed, preserved, retained and reinstated in accordance with Department for Environment, Food and Rural Affairs (Defra) guidance. Key mitigation measures from this guidance will be included in the CEMP(s); • The CEMP will include a Soil Management Plan (SMP) providing guidance on handling of soil material, specific to the soil resource present. This will serve to conserve both soil volume and functional capacity for beneficial reuse, from the small areas where soil will be stripped. The SMP will also cover the establishment of the permanent green cover at the suspension of arable cropping that will remain in place for the duration of the solar farm construction, operation, and decommissioning. In addition to protecting the soil surface from damage, this green cover will be a forage crop for grazing by livestock. The composition of the seed mix used can be varied across the site to deliver specific yield and biodiversity objectives appropriate to the location; and • ~~The Burwell National Grid Substation Extension, if this Option is pursed, would be subject to soil surveys as part of the SMP.~~ **General Principles** Key threats to the soil resource during construction are trafficking of vehicles/plant and incorrect handling of soil, which can cause damage to soil structure through compaction and smearing. These effects could compromise the ability of the soil to perform its functions, such as providing adequate water, air and nutrients to plant roots. The risk of compaction and smearing increases with soil wetness. To minimise the risk of damage to soil structure, the following will be implemented during construction of the Scheme: • No trafficking of vehicles/plant over in situ or bunded soils to occur outside demarcated working areas; • No trafficking of vehicles/plant on reinstated soil (topsoil or subsoil);	Record rainfall, assessment of soil consistence and the suspension of soil disturbance while plastic. Monitor temporary diversions of PRoWs during the construction phase to ensure they are suitable and well maintained for use.	To be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Establish and maintain a grass sward over the Solar PV area before trafficking over by construction plant and delivery vehicles; • Where practicable soil handling when soil moisture content is above the plastic limit (the moisture content at which soil begins to behave as a plastic material and the soil is deemed too wet to handle without causing damage to the soil structure), will be avoided. Where operational constraints require the disturbance of plastic soil material, suitable remediation should be specified for instance the wind rowing of loose tipped material; • Some light textured soils have insufficient clay content to reach a plastic consistence when wet. They can however be vulnerable to compaction when wet, impairing plant root growth and permeability; • Oil handling should be by excavator and dump truck as per sheets A to D of the Institute of Quarrying Good Practice Guide for Handling Soils in Mineral Workings (Ref 21); • Void handling of soils to be carried out during periods of prolonged, heavy rainfall; • No mixing of topsoil with subsoil, or of soil with other materials; • Oil only to be stored in designated soil storage areas; • Plant and machinery only work when ground or soil surface conditions enable their maximum operating efficiency (i.e. when machinery is not at risk of being bogged down or skidding causing compaction or smearing); • All plant and machinery must always be maintained in good working condition to ensure that the soil is stripped correctly, for example to ensure that the depth of the strip can be accurately controlled, and to minimise the risk of contamination through spillages; • Maintenance and seeding of soil stockpiles; • Daily records of operations undertaken, and site and soil conditions should be maintained during soil handling activities; and • Low ground pressure (LGP models) and tracked vehicles should be used where possible when working directly on bare or vegetated soils to minimise the extent and/or intensity of the soil loosening/decompaction required after reinstatement		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	The Plastic Limit can be assessed in the field and a methodology is given in Supplementary Note 4 of the Good Practice Guide for Handling Soils in Mineral Workings. Soil is in a plastic condition when it is moist enough to be rolled between hand and a smooth surface (metal plate or ceramic tile) into a roll of 3 ~~2~~mm (approximately 1/8 inch) thickness. If the soil crumbles before reaching this thickness it is not plastic. Once a plastic consistency has been reached following rainfall, work should be suspended until the soil has dried sufficiently to no longer be plastic. The majority of the proposed Solar PV development will comprise rows of solar modules mounted over pasture. There will be no requirement to move or seal soil below foundations for this land. Therefore, the risks to the soil resource are minimal compared to minerals extraction or built development of a similar scale. Furthermore, the permanent green cover will enable a greater exploitation of the soil profile by plant roots than can occur with annual arable crops, improving structural development and permeability in the subsoil. **Soils Data** The detailed Agricultural Land Classification (ALC) assessment of the Scheme provides the information on soil physical characteristics that will assist in the development of the SMP. Additional soil survey should be undertaken on the route of the grid connection works ~~and Burwell National Gird Substation Extension Option 2, if this option is taken forward,~~ to provide similarly detailed data on soil physical characteristics. **Pre-Work Condition** The majority of the Scheme is arable land, subject each year to a succession of cultivation passes and trafficking by high axle load vehicles such as grain trailers and combine harvesters. Topsoils are predominately light textured (sandy) and resilient to structural damage, topsoil compaction being readily alleviated by standard cultivation. Exposed soil is however vulnerable to wind and water erosion, and light subsoils are most vulnerable to deep compaction under heavy traffic when wet. Subsoil compaction rapidly becomes more difficult to alleviate through cultivation with increasing depth. Prior to beginning work of the solar module deployment and development of the associated infrastructure vegetated cover would be established to eliminate areas of bare soil. The seed mix for this sward would be selected with reference to the Landscape and Ecology Management Plan.		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	Soil Storage Bunds The building and storage of soil storage bunds at the site would follow the guidance given in Sheets B and C of the Institute of Quarrying Good Practice Guide for Handling Soils in Mineral Workings. Soil stripping and storage will be mostly confined to topsoil with very little excavation of subsoil. Where there is any requirement to store subsoil, this will be in bunds separate to the units of topsoil material. Based upon the existing soils data from ALC survey with additional survey for cable routes ~~and the Burwell National Grid Substation Extension~~, the separation of topsoil into separate units for stripping, storage and eventual restoration, will be determined by a suitably qualified Soil Scientist. A map of topsoil units will be included with the SMP and retained to ensure topsoil units are restored to their original location. The location and maximum dimensions of the soil storage bunds will be defined in the Soil Management Plan. Once a bund is complete the dimensions will be recorded creating a log of the volume of each soil unit stored. **Requirements** **Infrastructure requiring a foundation and Tracks** Topsoil would be stripped separately from the underlying subsoil to avoid the topsoil being covered by tracks, hard standings and structures. For the access tracks the topsoil is to be thinly spread to the side of the track from where it would be recovered when the track is decommissioned. For the infrastructure requiring a foundation the topsoil would be stored in a bund not exceeding 4m high. Hard standing surfaces would be laid over the subsoil with a separating geotextile membrane. Drains would be laid below the track and hard standing where appropriate. Where subsoil needs to be stripped to achieve a desired level, it would be handled and stored separately to topsoil in bunds of up to 5m height. Stripped subsoil could be used to build up levels within the Site but would not be spread without topsoil having been stripped from the receiving area first. Soil handling work would not commence until the soil has dried to below the plastic limit. Work would be suspended for rainfall. If the rainfall is sufficient to wet the soil at the surface		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	to a plastic consistence then work would not restart until it has dried sufficiently to return to a friable consistence. **Cable Trenches and Fence Posts** Excavation of cable trenches would separate topsoil and subsoil, and replace these in order when backfilling the trench. Where there is excess soil material to backfill, the level would be maintained by removing subsoil to storage and returning all of the topsoil. Where soil material is excavated for post holes, topsoil would be spread thinly to the side of the excavation, with subsoil removed to a storage bund or reused for building up levels. **Solar PV Modules** Prior to starting work a grass cover would be established. Plant working on the site would be low ground pressure vehicles, for instance using agricultural tractors and trailers to move materials off the access track routes rather than road going HGVs. Trafficking of plant and vehicles off the access tracks would not commence until the soil has dried to below the plastic limit. Work would be suspended for rainfall. If the rainfall is sufficient to wet the soil to a plastic consistence then work would not restart until it has dried sufficiently to return to a friable consistence. Where wheel ruts or other signs of surface compaction do arise, these would be remediated by using an excavator to lift and loose tip the topsoil before reseeding. This would take place at the completion of the construction works once all plant and vehicle passes have been completed.		
Disruption to local residents, businesses and community facilities Disruption to users of Public Rights of Way	A Skills, Supply Chain and Employment Plan will be implemented. An **Outline Skills, Supply Chain and Employment Plan [APP-268]** has been submitted with this DCO Application. This plan sets out the likely economic benefits of the Scheme, and the context and characteristics of the local community and economy in which it is located. It then identifies potential opportunities for activities relating to Skills, Supply Chain and Employment which the Applicant could take forward post-planning, together with a framework for future delivery. Where possible, temporary closures of Public Rights of Way will be planned and programmed to minimise disruption to users. Appropriate signage relating to the PRoW, will be provided and agreed with the local planning authority as part of the approval of the CTMP. Signage will be provided at locations where an informed decision can be made by NMUs	To be confirmed in the CEMP(s)	To be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	about using the route or utilising a different route. Prior to such closures, a condition survey will be undertaken of the PRoW and the PRoW will be restored to their previous condition following any closure. The restoration will include the reinstatement of any boundary features such as hedgerows adjacent to the PRoW. The CTMP will set out that reinstatement works for the Public Rights of Way shall be agreed with the LHA (and in respect of boundary hedgerows, following consultation with the Council's Ecologist) and that the Applicant will permit access to the LHA to inspect the restoration. All members of the construction work force and visitors will be made aware of the equestrian routes or areas affected by the construction of the Scheme. The principal contractor will undertake specific liaison with landowners to provide them with a programme of when land is proposed to be possessed for the purposes of the Scheme (including if land is to be possessed more than once) prior to the temporary possession notice period in the DCO. Measures to mitigate the effects of construction noise are outlined in **Table 3-6**. Measures to mitigate the effects of visual impacts from construction are outlined in **Table 3-5.** Measures to mitigate the effects of construction traffic are outlined in **Table 3-8.** Measures to mitigate the effects on air quality during construction are outlined in **Table 3-9**.		
Emergency services	A procedure for providing East of England Ambulance Service Trust (EEAST) with advanced notice of planned road closures, traffic management and AIL movements will be developed and agreed with EEAST. Should any short notice changes to road closures, traffic management and AIL movements occur, these will be communicated to the EEAST duty telephone line.		To be confirmed in the CEMP (likely Contractor)
	Arrangements for ambulance access to the sites and procedures for handover of any person at the site that requires treatment or transport by EEAST will be agreed with EEAST.		To be confirmed in the CEMP

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
			(likely Contractor)

Table 3-8 Transport and Access

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Increased traffic flows, including HGVs on the roads leading to the site. Severance and intimidation associated with increased construction traffic and abnormal loads.	**Appendix 13C: Framework CTMP and Travel Plan** of this Environmental Statement **[EN010106/APP/6.2]** details the mitigation measures required to reduce the impacts of increased traffic flows including HGVs on the roads and severance and intimidation associate with increased traffic and abnormal loads. The Framework CTMP and Travel Plan also includes mitigation measures for the Public Rights of Way and their users which are to be implemented as part of the Scheme. The final CTMP and Travel Plan will be produced prior to construction based on the Framework CTMP and TP (**Appendix 13C** of this Environmental Statement **[EN010106/APP/6.2]**). **Communication** As part of the Communication Strategy information and advance warning of the proposed traffic regulation measures will be provided to the public/users of the highway network. The name and contact details of person(s) accountable for traffic issues on site will be provided as well as the head or regional office contact information when this information is shared with the public/users of the highway.	The appointed contractor will undertake such monitoring as is necessary. Further details to be confirmed in the CEMP(s).	Travel Plan Co-ordinator to oversee management, monitoring and implementation of the individual measures within the CTMP. Other responsibilities are to be confirmed in the CEMP(s).

Table 3-9 Air Quality

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Increased nitrogen dioxide (NO_2) and particulate matter (PM_{10}) from on-site and off-site construction vehicle/plant emissions. Increased particulates and deposited dust from Site activities, materials transportation, storage and handling, including use of haul roads.	Appropriate standard and best practice control measures will be included in the CEMP(s), which may include, but not be limited to: **Communication** • As part of the Communication Strategy, develop and implement a stakeholder communications plan that includes community engagement before work commences on-site; • Display the name and contact details of person(s) accountable for air quality and dust issues on site. This may be the environment manager/engineer or the site manager. The head or regional office contact information will also be displayed; and • Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site. The DMP may include monitoring of dust deposition, dust flux, real-time PM10 continuous monitoring and/or visual inspections. **Site Management** • Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken; • Make the complaints log available to the local planning authority upon request; • Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook; and • Hold regular liaison meetings with any other high-risk construction sites within 500m of the Order limits (if applicable), to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/ deliveries which might be using the same strategic road network routes.	Measures in the CEMP(s) will include the implementation of inspection procedures at the Order limits to periodically visually assess any dust and air pollution which may be generated. Additional monitoring measures will be provided in the CEMP(s)	To be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	Monitoring • Undertake inspection, where receptors (including roads and ecological receptors) are nearby, where access is granted to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces within publicly available land within 100m of Order limits, with cleaning to be provided if necessary; • Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked; • Increase the frequency of site inspections by the person accountable for air quality and dust issues on-site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions; and • Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the local authority. Where possible commence baseline monitoring at least three months before work commences on-site or, if it a large site, before work on a phase commences. Further guidance is provided by Institute of Air Quality Management (IAQM) on monitoring during demolition, earthworks and construction. **Preparing the Site** • Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible; • Erect solid screens or barriers around dusty activities that are at least as high as any stockpiles on-site where stockpiles are within 100m of receptors; • Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period where operations are within 100m of receptors; • Avoid site runoff of water or mud; • Keep site fencing, scaffolding and barriers clean using wet methods;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Remove materials that have a potential to produce dust from the construction site as soon as possible, unless being re-used on-site. If they are being re-used on-site cover as described below; and • Cover, seed or fence stockpiles to prevent wind whipping. **Dust management** The contractor will need flexibility to determine which measures are most effective in a given situation, but the measures are listed in IAQM guidance on assessment of dust from demolition and construction (Ref 18) and include: • Implement wetting of dust generating activities, which are usually incorporated into a Dust Management Plan (where necessary) produced by the contractor. • Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, where access is granted, to monitor dust and record inspection results, on publicly accessible land. • Increase the frequency of inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. • Locate dust causing activities away from receptors, as far as is possible. • Use intelligent screening where possible – e.g. locating site offices between potentially dusty activities and the receptors. • Erect solid screens or barriers around the site boundary if necessary. • Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period where operations are within 100m of receptors. • Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. • Depending on the duration that stockpiles will be present and their size, cover, seed, fence or water to prevent wind whipping. • Sheet vehicles carrying dusty substrates.		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas. • Use enclosed chutes, conveyors and covered skips, where practicable. • Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate. • Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. **Operating vehicle/machinery and sustainable travel** • Ensure all vehicles switch off engines when stationary i.e. no idling vehicles; • Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable; • Ensure all non-road mobile machinery are regularly maintained and checked to minimise emissions; • Construction staff vehicles will be discouraged from using Turnpike Road during construction to minimise air quality impacts on the Red Lodge Heath SSSI; • Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing); • Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate); and • Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials. **Operations**		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems; • Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate; and • Ensure equipment is readily available on-site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. **Waste** • No bonfires and burning of waste materials will be carried out. In addition, activity specific mitigation measures include: **Earth Works** • Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable; • Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable; and • Only remove the cover in small areas during work and not all at once. **Construction** • Avoid scabbling (roughening of concrete surfaces) if possible; • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place; • Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery; and • For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	Track-out • Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use; • Avoid dry sweeping of large areas; • Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport; • Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable; • Record all inspections of haul routes and any subsequent action in a site logbook; • Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned; • Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable); • Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits; and • Access gates to be located at least 10m from receptors where possible.		

Table 3-10 Ground Conditions

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Potential for risks to human health associated with waste generation, land contamination, airborne contamination and groundwater contamination. The discovery of ground contamination during groundworks. Levelling of the site including the possible introduction of new fill materials.	**Intrusive Site Investigations** Intrusive site investigation works will be undertaken prior to commencing construction in accordance with the written strategy approved pursuant to a Requirement of the DCO, in relation to the identification and remediation of any risks associated with contamination. Outcomes of the site investigations will be handled in line with the provisions of the Requirement in the DCO, including any additional investigation or mitigation measures. Intrusive site investigation will provide geo-environmental data to evaluate soil and groundwater quality and verify the conceptual site model. It will also verify the proposed mitigation measures so that unacceptable pollutant linkages do not exist on completion of the Scheme. The geo-environmental investigation will be designed with due consideration of the requirements of BS 10175:2011: +A2 2017: Investigation of Potentially Contaminated Sites – Codes of Practice (BSI). Prior to work commencing, a health and safety risk assessment will be carried out in accordance with current health and safety regulations and based on ground investigation findings. This assessment will cover potential risks to both the DCO Site staff and the local population. Based on the findings of this risk assessment, appropriate mitigation measures should be implemented during the course of any temporary works. Historical boreholes (including former Waterhall public water supply) are noted to exist on the DCO Site; these will need to be identified and decommissioned (if not in use) or protected, in accordance with EA guidance, to remove this potential pathway into the underlying aquifers. Natural England and the EA will be consulted regarding Fenland SAC, Chippenham Fen SSSI and Snailwell Poor's Fen SSSI which adjoin or partially overlap the ~~Sunnica West Site B~~ Grid Connection Route B prior to any intrusive works. This is because these nature conservation sites are fed by chalk springs, and water levels are controlled by a series of ditches and dykes. They also support a diverse range of	To be confirmed in the CEMP(s)	To be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	aquatic flora and fauna which may be susceptible to local changes in ground and surface flows. **Best Practice and Mitigation Measures During Construction** Best practice avoidance and mitigation measures proposed include: • All plant (i.e. inverters, transformers and switchgear) will be installed on concrete bases and/or a thick layer of sand with suitable bunding where appropriate; • The detailed operational drainage design will be carried out pre-construction with the objective of ensuring that drainage of the land to the present level is maintained. It will follow either the design of a new drainage system taking into account the proposed new infrastructure (access tracks, cable trenches, structure foundations) to be constructed, or, if during the construction of any of the infrastructure, there is any interruption to existing schemes of land drainage, then new sections of drainage will be constructed. A surface water drainage strategy (see Annex D of the Flood Risk Assessment Addendum **[REP4-041]**) ~~The surface water drainage strategy~~ has been submitted with the DCO application ~~in **Appendix 9C** of this Environmental Statement **[AS-007 to AS-009]**~~ and a surface water drainage scheme is secured by a requirement to the DCO. Infiltration drainage design will be in accordance with BRE 365 and infrastructure will be placed at least 10m away from watercourses; • Appropriate use of Personal Protective Equipment (PPE) and implementation and adherence to Health & Safety Protocols, Plans and Procedures; • A Pollution Response will be drafted prior to the commencement of the works. The plan will outline key pollution mitigation measures including a Control of Substances Hazardous to Health (COSHH) / fuel inventory and key contacts to be notified in the event of a significant pollution incident, which may subsequently lead to the contamination of controlled waters. Tanks and dispensing pumps will be locked when not in use to prevent unauthorised access; • Oils and hydrocarbons will be stored in designated locations with specific measures to prevent leakage and release of their contents, include the siting of storage areas away from surface water drains, on an impermeable base with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	contents. Valves and trigger guns will be protected from vandalism and kept locked up when not in use. All chemicals will be stored in accordance with their COSHH guidelines, whilst spill kits will be provided in areas of fuel/oil storage; • All plant and machinery will be kept away from surface water bodies wherever possible. Vehicles should be well maintained to prevent accidental pollution from leaks. Static machinery and plant should include drip trays beneath oil tanks/engines/gearboxes/hydraulics, which will be checked and emptied regularly via a licensed waste disposal operator. Refuelling and delivery areas will be located away from surface water drains; • An emergency spillage action plan will be produced, which all site staff will have read and understood, and provisions made to contain any leak/spill. Information regarding spill prevention and disposal of COSHH items will be provided as part of the standard site induction presentations and during regular toolbox talks and as the works progress; • Workers will remain vigilant of ground conditions at all times and will report to the contractor any suspect areas of potential contamination. Should any potentially contaminated ground, including isolated 'hotspots' of contamination and/or potential deposits of asbestos containing materials (ACM), be encountered, the contractor will be required to investigate the areas and assess the need for containment or disposal of the material. Advice should be sought from an environmental specialist should materials suspected of being contaminated be found. The contractor will also be required to assess whether any additional health and safety measures are required; • To further minimise the risks of contaminants being transferred and contaminating other soils or water, construction workers will be briefed as to the possibility of the presence of such materials; • In the event that contamination is identified, appropriate remediation measures will be taken to protect construction workers, future site users, water resources, structures and services;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• The contractor will be required to place arisings and temporary stockpiles away from watercourses and drainage systems, whilst surface water will be directed away from stockpiles to prevent erosion; • Stockpiles and material handling areas will be kept as clean as practicable to avoid nuisance from dust. Dusty materials will be dampened down using water sprays in dry weather or covered; • The length of time materials are stockpiled on-site before being removed for re-use, recycling or disposal is to be kept to a minimum and stockpiles are to be covered with tarpaulins prior to disposal; • Dust generating equipment e.g. mobile crushing and screening equipment will be located to minimise potential nuisance impacts to receptors, as far as practicable. • The risk to surface water and groundwater from run-off from any contaminated stockpiles during construction works will be reduced by implementing suitable measures to minimise rainwater infiltration and/or capture runoff and leachates, through use of bunding and/or temporary drainage systems. These mitigation measures will be designed in line with current good practice, follow appropriate guidelines and all relevant licences/permits; • The contractor will ensure that all material is suitable for its proposed use and will not result in an increase in contamination-related risks on identified receptors, including any landscaped areas and underlying groundwater; • Any waters removed from excavations by dewatering will be discharged appropriately, subject to the relevant permits being obtained from the Environment Agency; • The contractor will implement a dust suppression/management system in order to control the potential risk from airborne contamination migrating off-site to adjacent sites; • Complaints about dust will be investigated at the earliest opportunity and appropriate action taken to control the source or remedy the impact as appropriate; • Access roads will be regularly cleaned and damped down with water;		

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	• All vehicles entering and leaving the site during the works will pass through a wheel washing facility. Vehicles used to transport materials and aggregates will be enclosed or covered in a tarpaulin. Vehicle movements will be kept to a minimum and vehicle speeds within the Site will be limited; • Piling/ramming will be carried out in accordance with the Environment Agency Guidance Note on Piling / Penetrative Ground Improvement Methods on Land Affected by Contamination and ground investigations will inform the Foundation / Piling Works Risk Assessment which will define the appropriate piling methods and foundation design to mitigate risk; • Work will be carried out in accordance with relevant Construction Design Management (CDM) Regulations 2015 details of these measures will be presented within the Health and Safety Plan (H&SP); • A competent/licensed contractor will survey (pre site preparation survey as defined by the Health and Safety Executive) and remove asbestos containing materials and other materials and structures contaminated with asbestos fibres; and • Specification of concrete used in foundations and building structures will be selected based on the results of the chemical composition of the Proposed Development Site's soil and groundwater. Guidance is provided by the Building Research Establishment series 'Concrete in Aggressive Ground'.		

Table 3-11 Waste

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Disposal of large volumes of waste (potential waste streams are listed in **Chapter 16: Other Environmental Topics** of this Environmental Statement **[APP-127].** Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately.	The contractor will consider the objectives of sustainable resource and waste management and seek to use material resources efficiently, reduce waste at source, reduce waste that requires final disposal to landfill and apply the principles of the waste hierarchy. This will include, where reasonably practical, working towards a cut and fill balance for excavations; segregation of construction materials on-site for appropriate re-use, recycling and recovery, with landfill as a last resort. This will be achieved by a combination of measures, including: • The contractor will prepare and implement a Construction Resource Management Plan (CRMP), which will set out targets for fuel, waste and energy consumption; • All waste transported off site will be delivered to the appropriately licenced receivers of such materials; and • As part of the CRMP, the contractor will segregate construction waste to be re-used and recycled where reasonably practicable. All soil to be reused on-site or disposed of off-site will be appropriately characterised by the contractor. To minimise impacts of waste on the surrounding environment, the following measures will be implemented: • Off-site pre-fabrication, where reasonably practicable, including the use of pre-fabricated structural elements, cladding units, mechanical and electrical risers and packaged plant rooms. Pre-fabrication could be utilised for the office/warehouses and control rooms associated with the onsite substations; • Burning of waste or unwanted materials will not be permitted on-site; • All hazardous materials including chemicals, cleaning agents and solvent containing products to be properly sealed in sealed containers at the end of each day prior to storage in appropriately protected and bunded storage areas; • Materials requiring removal from the construction site will be transported using licensed carriers and records kept, detailing the types and quantities of waste moved and the destinations of this waste, in accordance with the relevant regulations. An audit and careful checks will be undertaken to ensure that all carriers and facilities will be licenced,	The types, quantities and final destination of waste generated during the construction phase will be identified, measured and recorded through the CRMP. A register of all waste loads leaving the construction site will be maintained to provide a suitable audit trail for compliance purposes and to facilitate monitoring and reporting of waste types, quantities and management methods.	To be confirmed in the CEMP(s)

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
	and that the appropriate permits and transfer notes are in place prior to removal of waste. Further information on these will be included within the CRMP; and • Prior to construction start, suitable recycling and landfill facilities with sufficient capacity to receive the quantities of construction waste expected will be identified.		

Table 3-12 Human Health

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Human Health risks during construction are covered in the following tables: Table 3-9 Air Quality, Table 3-4 Flood Risk, Drainage and Water Resources, Table 3-6 Noise and Vibration, Table 3-7 Socio-Economics and Land Use, Table 3-8 Transport and Access, Table 3-10 Ground Conditions, and Table 3-11 Waste.			

Table 3-13 Major Accidents and Disasters

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
All works will be undertaken in accordance with relevant Health and Safety legislation and guidance. Details of fire, police, emergency services and hospitals will be publicised and included in the site induction. The relevant risk assessments for safety during construction will be required and produced by the contractor prior to construction, which will be implemented to minimise the risk of accidents and disasters on site. An **Outline Battery Fire Safety Management Plan [REP2-032~~APP-267~~]** has been submitted with the DCO Application. This explores the risks associated with fires from BESS equipment and sets out measures to minimise the impact of an incident during construction, operation and decommissioning of the facility. Furthers risks of major accidents and disasters are covered in the following tables: Table 3-4 Flood Risk, Drainage and Water Resources, Table 3-8 Transport and Access, Table 3-10 Ground Conditions, and Table 3-11 Waste.			

Table 3-14 Telecommunications, Television Reception and Utilities

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Risk of utilities to be affected through damage caused	Precautionary measures include: • Designing the Scheme having regard to utilities' protection zones;	To be confirmed in the CEMP(s)	The overall responsibility will be with

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
as a result of excavation and engineering operations	• The use of ground penetrating radar before excavation to identify any unknown utilities; and • Consultation and agreement of construction methods prior to works commencing. The protective provisions to the DCO make provision for consultation and/or agreement in relation to works with the potential to impact utilities prior to works commencing. Consultation has been undertaken with Cadent Gas and National Grid in order to carefully identify the easement corridors required to avoid the gas pipelines running through the Order limits.		the contractor.

Table 3-15 Glint and Glare

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Glint and Glare risks are covered in the following tables: Table 3-8 Transport and Access and Table 3-5 Landscape and Visual Amenity			

4 Complementary Plans and Procedures

4.1.1 A suite of complementary environmental plans and procedures for the construction phase will be developed alongside the CEMP(s), including a CRMP, SMP, DMP, WMP and WFD Mitigation Strategy as discussed in the tables above. These plans and procedures will build on the principles and procedures set out in this Framework CEMP and described in the ES. These supporting and supplementary plans and procedures will be clearly outlined in the CEMP(s) and cross referenced.

5 Implementation and Operation

5.1.1 The CEMP(s) will set out all roles, responsibilities and actions required in respect of implementation of the measures described in this Framework CEMP, including:

a. An organogram showing team roles, names and responsibilities;

b. Training requirements for relevant personnel on environmental topics;

c. Information on-site briefings and toolbox talks that will be used to equip relevant staff with the necessary level of knowledge to follow environmental control procedures;

d. Measures to advise employees of changing circumstances as work progresses;

e. Communication Strategy;

f. Document control; and

g. Environmental emergency procedures.

6 Checking and Corrective Action

6.1 Monitoring

6.1.1 To meet the requirement of the CEMP(s), environmental monitoring of the Scheme and its impacts will be undertaken throughout the construction phase.

6.1.2 As part of the monitoring process the contractor will allocate a designated Environmental Site Officer(s), who will be present on site throughout the construction process and when new activities are commencing. The Environmental Site Officer will observe site activities and report any deviations from the CEMP(s), along with the action taken and general conditions at the time. The Applicant will be informed of any deviations from the CEMP(s) as soon as possible following identification of such issues. The Environmental Site Officer will also act as day-to-day contact with relevant local authorities and other regulatory agencies such as the Environment Agency.

6.1.3 During construction, the Environmental Site Officer will conduct walkover surveys to ensure all requirements of the CEMP(s) are being met. Action from these surveys will be documented on an Environmental Action Schedule, discussed with the Site Manager for programming requirements and issued weekly for actioning.

6.1.4 The Environmental Site Officer and /or the Project Manager will arrange regular formal inspections to ensure the requirements of the CEMP(s) are being met. After completion of the works, the Environmental Site Officer will conduct a final review.

6.1.5 A display board will be installed on-site and a website will be set up. These will include contact details for the Site Manager or alternative public interface with whom complaints can be lodged. A log book of complaints will be prepared and managed by the Site Manager.

6.1.6 A Community Liaison Group will be set up prior to construction and a Community Liaison Officer will be appointed to lead discussions with local communities during construction. Contact details will also be available on the display board at the site entrance should anyone wish to make contact.

6.1.7 The Contractor will set up a social media page where regular progress updates will be provided. This would be used to post any information on changes such as crane deliveries or new phases of work to ensure that the local community remain up to date.

6.2 Records

6.2.1 The Environmental Manager / Project Manager will retain records of environmental monitoring and implementation of the CEMP(s). This will allow provision of evidence that the CEMP(s) is being implemented effectively. These records will include:

a. Environmental Action Schedule;
b. Licences and approvals;
c. Results of inspections by Environmental Manager/ Project Manager;
d. Other environmental surveys and investigations; and
e. Environmental equipment test records.

6.2.2 The CEMP(s) will be updated as necessary, with a full review as required (at least quarterly) throughout the construction period.

6.2.3 A brief report will be produced and submitted to the relevant local planning authority for information on a quarterly basis and following completion of commissioning. This will summarise the monitoring process, observed deviations from the CEMP(s) and the corrective actions taken.

6.3 Management Review

6.3.1 The CEMP(s) will be signed off by an appropriately qualified person(s) on completion of the construction works.

7 References

Ref 1 The Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2017).

Ref 2 HMSO (2008) The Planning Act 2008.

Ref 3 Northern Ireland Environment Agency (NIEA) (2018), Above ground oil Storage tanks: GPP 2.

Ref 4 NIEA (2017), Treatment and disposal of wastewater where there is no connection to the public foul sewer, GPP 4.

Ref 5 NIEA (2018); Works maintenance in or near water, GPP 5

Ref 6 NIEA (2017); Safe storage and disposal of used oils, GPP 8

Ref 7 NIEA (2017); Pollution incident response planning GPP 21

Ref 8 CIRIA (2001) C532: Control of water pollution from construction sites: guidance for consultants and contractors

Ref 9 CIRIA (2006) C649: Control of water pollution from linear construction projects

Ref 10 British Standards, BS 6031: 2009 Code of Practice for Earthworks.

Ref 11 HMSO (2002) Control of substances Hazardous to Human Health (COSHH) Regulations.

Ref 12 HMSO (2001) Control of pollution (Oil Storage) (England) Regulations.

Ref 13 Health and Safety Executive (HSE) (2009) Carriage of Dangerous Goods (CDG) and Use of Transportable Pressure Equipment Regulations

Ref 14 HMSO (1991) Water Resources Act.

Ref 15 HMSO (2016) Environmental Permitting (England and Wales) Regulations.

Ref 16 British Standards Institute (2012) BS 5837:2012 – Trees in relation to design, demolition and construction. Recommendations, Noise, BSi, London.

Ref 17 British Standards Institute (2014 with 2019 amendments) BS 5228:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites. Noise, BSi, London.

Ref 18 IAQM (2014). Guidance on the assessment of dust from demolition and construction. Institute of Air Quality Management.

Ref 19 RSPB information Note. ‘Managing nest plots for stone-curlews’, Version 2 – Eastern England

Ref 20 Natural England (2018) Countryside Stewardship grants Higher Tier ‘AB4: Nesting plots for stone curlew’ guidance note

Ref 21 The Institute of Quarrying (2021) Good Practice Guide for Handling Soils in Mineral Workings

Ref 22 British Standards Institute (2010) BS 3998: 2010 – Treeworks – Recommendations. Noise, BSi, London.