Mallard Pass

Solar Farm

Mallard Pass Solar Farm

outline Construction Environmental Management Plan (oCEMP) [Clean]

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1.0 Introduction

1.1. Purpose of this document

1.1.1. This document provides an outline Construction Environmental Management Plan (oCEMP) for the construction of Mallard Pass Solar Farm (hereafter referred to as 'the Proposed Development').

1.1.2. CEMP(s) will be produced for the Proposed Development in accordance with Development Consent Order (DCO) Requirements prior to commencing construction, which will be required to be substantially in accordance with this oCEMP submitted as part of the DCO Application.

1.1.3. The Proposed Development is likely to constructed in phases or parts, and it is envisaged that the CEMP(s) may be prepared, approved and implemented for individual parts or phases of the Proposed Development. As a result, there could be multiple CEMP(s) prepared in accordance with this oCEMP. Each CEMP will be produced in line with this oCEMP following grant of the DCO and approved by the local planning authorities in consultation with the Environment Agency in advance of the date of commencement for the relevant phase of the Proposed Development.

1.1.4. This document does not address measures for the operational or decommissioning phases, which are provided in the separate ***outline Operational Environmental Management Plan (oOEMP)*** [**EN010127/APP/7.7]** and the ***outline Decommissioning Environmental Management Plan (oDEMP)*** [**EN010127/APP/7.8]** respectively.

1.1.5. Likely significant effects have been identified through the Environmental Impact Assessment (EIA) process and are reported in the Environmental Statement (ES). A range of best practice mitigation and construction methodology measures were accounted for in the assessments, and these will be implemented during construction of the Proposed Development. This oCEMP demonstrates how these measures will be implemented. It also sets

out the monitoring activities designed to ensure that mitigation measures are carried out, and that they are effective.

1.1.6. The CEMP (s) will be prepared following the appointment of a principal construction contractor, prior to the start of construction of the Proposed Development.

1.1.7. This oCEMP has been prepared with the objective of compliance with the relevant legislation and mitigation measures identified through the EIA process. Any additional construction licences, permits or approvals that are required for the construction phase of the Proposed Development and that are not disapplied by the DCO, will be set out in the CEMP (s), including any environmental information submitted in respect of them (see also the Consents and Licenses required under other legislation **[EN010127/APP/3.3]**.

1.1.8. This oCEMP provides the likely structure of the CEMP (s) and controls which might be included within the CEMP (s) to deliver the construction phase of the Proposed Development.

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

1.1.10. This oCEMP is set out in the context of the other environmental management plans that are submitted with the DCO Application in Figure 1-1 below.

Figure 1-1 Environmental Management Plans Hierarchy

1.1.11. The following additional environmental management plans are secured by this oCEMP and will be prepared as part of the CEMP (s) prior to construction of the Proposed Development:

a. Pollution Prevention Plan (PPP);
b. Dust Management Plan (DMP);
c. Emergency Response Plan;
d. Emergency Spillage Action Plan;
e. Health and Safety Plan (H&SP);
f. Construction Resource Management Plan (CRMP); and
g. Greenhouse Gas Reduction Strategy.

1.2. The Order limits

1.2.1. The Order limits are described in ***Chapter 3: Description of Order limits***, of the ES **[EN010127/APP/6.1].**

1.2.2. They comprise the Solar PV Site, Mitigation and Enhancement Areas, Highway Works Site and the Grid Connection Corridor.

1.3. The Proposed Development

1.3.1. The Proposed Development is described in ***Chapter 5: Project Description*** of the ES.

2.0 Construction of the Proposed Development

2.1. Construction Programme

2.1.1. The construction phase is anticipated to take 24 months and subject to being granted consent the earliest construction is anticipated to start is Summer 2026. The final programme will be dependent on the detailed layout design and potential environmental constraints on the timing of construction activities.

2.2. Construction Activities

2.2.1. The indicative construction activities likely to be required as provided below (not necessarily in order):

a. Order limits preparation:
   i. Delivery of construction materials, plant and equipment
   ii. The establishment of site fencing
   iii. The establishment of the primary and secondary temporary construction compound(s)
   iv. The upgrade of existing tracks and construction of new tracks required
   v. The upgrade or construction of crossing points (bridges/culverts) over drainage ditches and below ground utility infrastructure
   vi. Marking out location of Mounting Structures
   vii. Advanced habitat creation

b. Construction:
   i. Delivery of Proposed Development components
   ii. Erection of Mounting Structures
   iii. Mounting of PV Modules
   iv. Installation of Electrical Cables
   v. Installation of Transformers and Inverters
   vi. Construction of Onsite Substation

vii. Construction of onsite electrical infrastructure to facilitate the export of generated electricity.

c. Testing and commissioning

d. Habitats creation and reinstatement and habitat creation, in accordance with the principles set out within the ***oLEMP*** **[EN010127/APP/7.9]**.

2.3. Construction Access

2.3.1. The construction access strategy will require construction vehicles to arrive from the Strategic Highway Network via Route 1 and depart to the Strategic Highway via Route 3. Routes 1 and 3 are described below:

a. Route 1 proposes to access the Solar PV Site from the A1, which forms part of the SRN via the B1081 Old Great North Road, Ryhall Road, the A6121 Essendine Road and Uffington Road to the Primary Construction Compound.

b. Route 3 proposes to depart the Primary Construction Compound via Uffington Road, the A6121 Stamford Road, West Road, Raymond Mays Way (south of Bourne), A15 and the A47.

2.3.2. It is expected that a large transformer (in excess of 100 tonnes) will be required. Route 1 is the preferred entry and exit route for Abnormal Indivisible Load and segments of this route have been included within the Order limits as initial swept path analysis along this route has identified the potential need for temporary localised road widening, temporary adjustments to the highway arrangement and/or street furniture, or other highway improvements between the A1 and the Solar PV Site to facilitate AIL movements.

2.3.3. To facilitate the movement of HGVs along Uffington Lane during the construction phase, temporary passing bays will be established. The passing bays will be temporary, with the verges reinstated and managed to support the ecological designations during the operational phase as described within the ***oLEMP.***

2.3.4. Up to nine new construction access points will need to be created to facilitate access into the Solar PV Site. Where possible access will be taken from existing agricultural tracks and field entrances. Where vegetation

removal/pruning is required for access and/or visibility splays, the works should be limited to that amount required to achieve the appropriate access / visibility required. Pruning of vegetation will be preferred over removal wherever possible.

2.3.5. A temporary primary construction and up to six secondary temporary construction compounds will be located within the Solar PV and at or close to access points within the Order limits, to minimise the extent of ground disturbance outside of the Solar PV Site. Once the construction works have been completed, the location of the temporary secondary construction compounds can be used for Solar PV Arrays and/or the routing of cabling, as set out on the ***Works Plans*** **[EN010127/APP/2.2].**

2.3.6. It is anticipated that the construction phase will require an average of between 100 - 150 workers onsite with a maximum of up to 400 construction staff at the peak construction period.

2.3.7. The following measures will form the basis of the strategy for managing access to the Order limits during construction:

a. **Consolidation:** use of a centralised Primary Construction Compound for deliveries to allow direct access to the Solar PV Site and reduce the need for larger deliveries to impact the Local Road Network (LRN), as secured through the ***outline Construction Travel Management Plan (oCTMP)*** **[EN010127/APP/7.11**]. From this centralised Primary Construction Compound, the deliveries will be distributed out via smaller, local vehicles to the Secondary Construction Compounds via the LRN and within the Order limits. This allows for extra control over the timings of any construction deliveries.

b. **Internal Routing:** internal access routes will be provided within the Solar PV Site to minimise vehicles needing to use the LRN.

c. **Vehicle routing:** construction vehicles will only utilise the permitted access routes as set out in the ***oCTMP*** which is secured through the DCO.

d. **Highways improvements:** permanent improvements will be made to the junction of the A1621 and Uffington Lane, as well as passing places being put in place along Uffington Lane to help facilitate two-way HGV flows (included in the Order limits) prior to construction (the passing places to be

removed post completion of construction). Further details on the mitigation measures are included within the supporting TA (see ***Appendix 9.4*** of the ES).

e. **Staff Shuttle**: a staff shuttle service will be deployed from the Primary Construction Compound to transport staff to the relevant area where works are required and investigations will be undertaken as to shuttles between areas of residents/public transport hubs.

2.4. Construction Reinstatement and Habitat Creation

2.4.1. A programme of landscape and habitat reinstatement and creation will commence during the construction phase as per the ***oLEMP***.

2.5. Construction Traffic Management

2.5.1. The ***oCTMP*** which incorporates the ***outline Travel Plan (oTP)*** and includes details on construction logistics and construction worker travel and information to guide the delivery of material, plant, equipment and staff during the construction phase.

2.6. Roles and Responsibilities

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

a. Site Manager – Overall responsibility for activity onsite, and will be based onsite full time.

b. Construction Project Manager - Overall responsibility for ensuring all elements in the DCO, CEMP and all environmental legal and other requirements are implemented, and appropriately resourced, managed, reviewed and reported.

c. Environment Manager - Responsible for the overall management of environmental aspects onsite, ensuring environmental legislation and best practices are complied with, and environmental mitigation and monitoring measures identified are implemented. The Environmental Manager will oversee environmental monitoring onsite and carry out regular environmental site inspections, reporting and responding to any incidents or non-compliance. The Environment Manager will liaise with relevant environmental bodies and other third parties as appropriate.

d. Ecological Clerk of Works (ECoW) - Management of the risks to ecological features (including watercourses) on construction sites, advising protecting

valued ecological features and providing practical solutions in line with this oCEMP.

e. Flood Warden – There will be a dedicated responsibility to be prepared for, and manage, the response to flood incidents.

f. Health and Safety Manager – Responsible for the monitoring and controlling of health and safety compliance and related rules and regulations onsite.

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

2.7. Working Hours

2.7.1. Core construction hours will run from 07:00 to 19:00 Monday to Saturday, and no working on Sundays or Bank Holidays. Heavy Goods Vehicle (HGV) deliveries to the Order limits and works likely to generate substantial levels of noise, aside from Horizontal Directional Drilling (HDD), would be limited to daytime hours of 07:00 to 19:00 during weekdays or Saturday mornings (until 13:00 hours), unless otherwise agreed with the relevant local authority.

2.7.2. HDD drilling could be required outside of the assumed day-time construction hours (i.e. evening, Sundays, Bank Holidays or at night) and would be agreed with the relevant planning authority.

2.7.3. Working days will be one 12-hour shifts, with employees travelling to and from the Order limits an hour either side of these times (i.e. between 06:00 and 07:00, and 19:00 and 20:00). Where onsite works are to be conducted outside the core working hours, this will be agreed with the relevant planning authority.

2.7.4. Section 61 Consents would be obtained for the Proposed Development which would include agreed construction noise limits for nearby noise sensitive receptors.

2.8. Control of Noise

2.8.1. Display boards will be installed onsite at locations where they are visible to the public which will include contact details for the Site Manager or alternative

public interface with whom complaints can be lodged. A logbook of complaints and remedial actions taken will be prepared and managed by the Site Manager and made available to the relevant local authority where requested. See Table 3-5 for more details.

2.9. Control of Light

2.9.1. Temporary construction lighting, in the form of mobile lighting towers, 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 within the Order limits, whilst adopting mitigation principles to avoid excessive glare, and minimise spill of light to nearby receptors (including ecology and residents) as far as reasonably practicable. See Table 3-1 and Table 3-2 for details on lighting in relation to Landscape and Visual and Ecology respectively.

2.10. Construction Traffic Management

2.10.1. During construction, the appointed principal construction contractor will ensure that the impacts from construction traffic on the local community are minimised, where reasonably practicable, by implementing the measures set out within the ***oCTMP*** and ***Chapter 9: Transport and Access of the ES***.

2.10.2. A CTMP will be developed by the appointed principal construction contractor and approved by the relevant planning authority prior to the commencement of construction on each phase of the development. The provision of a CTMP is secured by the DCO. This will also encourage construction staff to utilise sustainable modes of transport for journeys to and from the Order limits where possible.

2.11. Site Security

2.11.1. Construction site security during the construction phase will be managed by the appointed principal construction contractor. Perimeter fencing will be implemented in accordance with details approved by the relevant planning

authority, at the start of the construction phase. Storage of materials and chemicals will be kept secure to prevent theft or vandalism. The principal construction contractor will be responsible for establishing a safe system for accessing the material storage areas.

2.12. Waste Recycling and Disposal

2.12.1. The Waste (England and Wales) Regulations 2011 place a duty on all persons who produce, keep or manage waste to apply the 'Waste Hierarchy' in order to minimise waste production at every stage of the development.

2.12.2. The Waste Hierarchy is a European concept which requires anyone managing waste to consider first waste prevention, preparing for reuse and recycling, followed by waste recovery methods e.g. energy recovery and, lastly, waste disposal.

2.12.3. In order to control the waste generated onsite during the construction phase, the appointed principal construction contractor will separate the main waste streams onsite, prior to transport to an approved, licensed third party waste facility for recycling and disposal.

2.12.4. All practicable actions will be taken by the principal construction contractor to minimise the volume of waste produced as a result of the construction of the Proposed Development. This can be through reducing consumption, reuse, using resources efficiently, and designing for longevity. Waste segregation will be undertaken where possible to maximise the opportunities for reuse and recycling.

2.12.5. A separate ***outline Excavated Materials Management Plan (oEMMP)*** included within the ***outline Soils Management Plan (oSMP)*** **[EN010127/APP/7.12]** submitted with the DCO Application sets out details of how excavated materials will be managed in accordance with the waste hierarchy, good practice measures for managing waste in construction and the roles and responsibilities of the principal construction contractor. The EMMP

will be finalised with specific measures to be implemented prior to the start of construction.

2.12.6. 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. See **Table 3-12** for further mitigation measures relating to waste.

2.13. Best Practice Measures

2.13.1. The Proposed Development will adopt the Considerate Constructors Scheme (CCS) to assist in reducing pollution and nuisance during the construction phase, by employing best practice measures which go beyond statutory compliance.

2.14. Environmental Incidents and Emergencies

2.14.1. An emergency response plan will be developed prior to construction in consultation with the relevant local authorities' emergency planning officers, emergency services, and the Environment Agency in relation to respond to flood warnings and events.

2.14.2. The plan will detail the procedures for responding to incidents and emergencies onsite, and any reporting.

3.0 Management and Mitigation Plan

3.1.1. This section of the oCEMP outlines the potential impacts, and associated mitigation measures to be included as a minimum within the CEMP(s). It also provides the monitoring requirements for mitigation and/or enhancement measures where required. The measures identified in **Tables 3-1 – 3-13** below will be reviewed and updated following the consent of the DCO Application as part of the preparation of the CEMP(s).

3.1.2. Not all of these measures have been identified to address specific adverse effects assessed through the EIA process. Some of the measures have been included as good practice.

3.1.3. Nothing in this oCEMP would prevent the modification or omission of the control measures set out in **Tables 3-1 – 3-13** where the construction methodology means that the measures can be so modified or omitted. This will be confirmed (including confirming that the absence or change to such control measures would not lead to any materially new or materially different significant effects) at the time of submission of the CEMP(s).

3.1.4. The responsibility for ensuring that the measures set out in **Tables 3-1 – 3-13** are implemented will lie with the principal construction contractor appointed by the Applicant. The principal construction contractor will also be responsible for appointing and managing personnel responsible for fulfilling particular roles identified in this document such as the Environmental Manager and ECoW. Specific responsibilities will be set out in the CEMP(s).

Table 3-1 Landscape and Visual

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Loss of existing landscape features, e.g. vegetation; and Visibility of construction activities	The ***oLEMP*** sets out the measures proposed to mitigate the potential impacts on landscape and ecological features, and to enhance the landscape and biodiversity value of the Order limits (i.e. the green infrastructure). The LEMP(s), which will be prepared in accordance with the principles of the ***oLEMP*** will provide details on the following measures: a. construction exclusion zones in relation to retained vegetation b. ensuring a tidy and neat working area c. covering stockpiles d. hoardings in a suitable colour to aid their integration in the landscape and e. 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 perimeter security fence will be implemented at the start of the construction phase to prevent construction activity in proximity to retained vegetation, in particular designated sites adjacent to the Order limits and, where required by arboricultural surveys, specific tree	A pre-construction arboricultural survey in line with BS5837:2012. Additional surveys may be required during the construction phase as advised as necessary by the appointed principal construction contractors' arboricultural specialist, based on the findings of the tree survey and/or detailed design, or otherwise as identified as appropriate by the Applicant or their appointed main principal construction contractor. ECoW will carry out monitoring of the proposed protection measures such as fencing.

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	protection measures will be implemented, including solid hoarding fencing and construction exclusion zones in full accordance with the requirements of BS 5837:2012. The design of the Proposed Development 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 existing 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. Landscape, arborists and/or the ECoW will ensure that the landscape and ecology requirements of the CEMP(s) and the LEMP(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. **Screening** Existing vegetation along the boundary of the Solar PV Site will be retained where practicable to ensure its continued presence and to aid the screening of low-level views into the Solar PV Site. **Tree Works** A pre-construction tree survey will be required prior to construction to re-establish the baseline prior to starting works. This survey will inform	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	the tree protection zones to be applied during construction. The findings of this will be included within an Arboriculture Report, which will be accompanied by an Arboriculture Method Statement (that will accompany the CEMP(s)) which will set out mitigation and protection measures to be undertaken. 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*'. **Lighting** Temporary 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. 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	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	c. Lighting will be directed towards the middle of the Order limits rather than towards the boundaries.	

Table 3-2 Ecology and Biodiversity

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Potential for spillages to enter watercourses and impact ecology. Accidental injury to protected species, active bird nests etc. during clearance of vegetation to facilitate construction Dust deposition on sensitive ecological receptors. Accidental damage or temporary loss to retained ecological features such as trees, hedgerows, LWS and SSSIs.	Subject to the nature of the construction activity, reasonable avoidance measures to avoid impacts on badgers and bats will be employed, including buffers of 30m around any identified badger setts, 15m buffer around trees with bat roost potential, 15m buffer zone adjacent to Local Wildlife Sites and, woodland and a 10m buffer zone to main watercourses. Perimeter fencing will be installed around the Solar PV Site within the Order limits to secure the Solar PV Site and/or areas of workings. This fence will also prevent accidental damage to retained vegetation, in particular designated sites (Local Wildlife Sites) within and adjacent the Order limits. Where perimeter fence is not required, specific protection measures will be implemented, including temporary construction fencing and/or construction exclusion zones. Suitable gaps (indicatively 30 x 30cm) will be incorporated into all lengths of perimeter fencing to allow badgers to pass beneath, as set out in the ***oLEMP***. Skylark plots within retained arable areas to be created before construction as set out in the ***oLEMP***. Toolbox talks will be delivered to all contractors to include the locations of retained features, the ecological risks present, legal requirements and working arrangements necessary to comply with legislation and	A pre-construction walkover will be undertaken in advance of mobilisation/any potential advance works to reconfirm the ecological baseline conditions and to identify any new ecological risks. The pre-construction badger surveys will be carried out within 30m of construction activities. Updated species surveys would be completed to reconfirm the status of protected species identified, to inform mitigation requirements and support protected species licence applications (although considered unlikely that these are required), if required by Natural England, the Council(s) and ECoW. The oCEMP will be updated to reflect additional survey requirements and then

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	the protection measures to be adhered to. Toolbox talks will be repeated as necessary over the duration of the construction phase. Update surveys for badgers will be carried out pre-construction to ensure that any new setts are identified sufficiently early to allow these to be dealt with appropriately, either through protection zones or licensed sett closures. This will also cover existing setts to identify whether they remain active. The purpose of the pre-construction surveys is to ensure mitigation during the construction phase is based on the latest protected species information. There is a risk of injuring amphibians, including GCN, during vegetation management (such as meadow cutting) within 250 m of Pond 13. This will be avoided by the requirement in the ***oLEMP*** that all management will be limited to cuts to no lower than 150mm from ground level in this area. More general walkover surveys will be undertaken by the ECoW to confirm whether the risks remain as previously assessed and/or to confirm correct implementation of impact avoidance measures (e.g. exclusions zones for protected species). Measures to prevent and minimise dust creation and air pollution will be adopted throughout construction. Please refer to the **Table 3-6** for the measures employed to minimise effects on air quality. Measures to prevent pollution incidents will be adopted throughout construction. Please refer to **Table 3-7** for the measures employed to avoid pollution events with respect to water quality.	any mitigation measures subsequently identified through those surveys. Monitoring of the proposed protection measures such as fencing will be undertaken by the ECoW to ensure mitigation is in place and effective. The condition of cleared areas will be monitored to ensure these remain unsuitable for reptiles, nesting birds etc.

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	Measures to minimise effects on ecology from noise and vibration will be adopted throughout construction. Please refer to **Table 3-5** for the measures employed to minimise noise and vibration. Vegetation clearance will be undertaken in advance of construction and at an appropriate time of year. To avoid damage to nests or injury to reptiles and other protected species, vegetation removal will involve a two-stage process with a first cut in winter (October to February) and the final removal during the active season for reptiles under the supervision of the EcoW (mid-April onwards). This would be implemented for any small-scale hedgerow, scrub or rough grassland removal/clearance from mid-April. As a further precaution, prior to starting construction during the nesting season (mid-March to August) in any of the open fields cleared of vegetation, the EcoW will carry out a survey of the affected field(s) to determine whether lapwing (or other ground nesting birds) is nesting in the area. If active nests are found, dependent upon the bird species and status of the nesting attempt, then appropriate buffer zones may need to be required upon advice sought from an appropriately qualified ornithologist and the area monitored until the young birds have fledged. The vegetation will be kept short to displace any protected species, which may be present, away from the construction works when they emerge in the early spring, and discourage them from moving into the construction areas from the surrounding habitat. In the unlikely event of it being necessary to apply for European Protected Species Mitigation (EPSM) or protected species licences	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	from Natural England in advance of the works in respect of dormouse. This will be overseen by the ECoW. 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 areas and fall into an excavation. A suitably experienced ECoW will be employed/contracted to advise on mitigation measure requirements, the findings of the updated surveys, and protected species licencing requirements (if any). The CEMP(s) will include detailed working method statements and will specify working requirements and other impact avoidance measures. Habitats to be temporarily lost or accidentally damaged during construction would be fully reinstated on a like for like basis at the same location on completion of construction works, where practical. The internal cable network will be horizontal directional drilled (HDD) underneath the West Glen River so not to impact on the water course or the immediately adjacent habitat. Any improvements to the existing bridge or crossing points will be designed with a tall span clear of the water level to allow continued movement by otter and water vole along the West Glen River and other minor watercourses and ditches.	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	The ***oLEMP*** sets out the principles 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). The production and implementation of a LEMP is secured through the DCO. The LEMP will build on the principles set out in the ***oLEMP***.	
Potential for obtrusive light and light spill impact on species and habitats	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. Temporary construction lighting will be designed as far as reasonably practicable so as to minimise artificial light spill from the Order limits and will not be continuously lit. Lighting will be kept to a minimum during construction works. Core construction working hours will be 07:00 – 19:00 Monday to Saturday (excluding works likely to generate substantial levels of noise which will be limited to 13:00 on Saturdays). 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. Throughout the Order limits, motion detection security lighting will be used to avoid permanent lighting and the inward distribution of light will avoid light spill on to existing boundary features.	None

Table 3-3 Cultural Heritage and Archaeology

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Impacts on archaeological deposits	The proposed archaeological protection and mitigation measures will be set out in the Outline and final agreed WSI. The author of the WSI, and those charged to execute the works described will be a suitable qualified and experienced professional archaeologist. The Chartered Institute of Archaeologists maintains a register of organisations and individuals that work to code of conduct and within industry recognised standards and guidance. In summary, the WSI will: Identify those locations where measures will be put in place to safeguard buried archaeological remains from temporary or permanent works that could adversely affect them. Areas will be demarcated on the ground (with suitable fencing and signposting), identified on mapping within welfare and site offices, and the means to ensure their protection will be highlighted in briefings to the construction workforce. Set out the means by which decisions will be made in the event of important archaeological remains being discovered during construction work. This will take the form of close liaison between the attending Archaeologist, the Environmental Clerks of Works, the nominated construction site manager; all being fully briefed in the mitigation options available to ensure adverse effects are avoided or minimised. Define the archaeological works planned in advance of or during construction and that they will be undertaken under the direction of	None

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	suitable qualified and experienced professional archaeologists. The planning and phasing of these works will be designed alongside the general construction programme, to minimise or avoid the potential impact of discovering unexpected remains. Ongoing archaeological evaluation and assessment under the WSI will allow for identification of any areas where concrete shoes / blocks may be required, and also where preservation in situ is the preferred strategy. These areas will be set out in the detailed CEMP. The CEMP(s) will detail where (in some locations) archaeological works in advance of and during construction will be employed to mitigate the potential effects of construction. Where non-intrusive trenching methods are required for cable routes, the CEMP(s) will include a strategy which will detail the monitoring of this, and it will include an action plan detailing the required mitigation in the event that unplanned activities threaten the preservation of known buried archaeological remains.	
Impacts upon built heritage assets	Direct impacts to designated built heritage assets (either to their physical form or via changes to their setting) are not anticipated during construction.	None

Table 3-4 Transport and Highways

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Increased traffic flows, including HGVs on the roads leading to the Order limits. Severance and intimidation associated with increased construction traffic and abnormal loads.	The ***oCTMP*** and associated ***oTP*** detail the mitigation measures required to manage the impacts of increased traffic flows including HGVs on the roads and severance and intimidation associated with increased traffic. The CTMP and Travel Plan will be produced and approved prior to construction in accordance with the ***oCTMP*** and ***oTP***. The mitigation measures for Abnormal Indivisible Load (AIL) will be discussed with stakeholders in accordance with regulatory requirements as set out in the ***oCTMP***.	The appointed principal construction contractor will undertake such monitoring in line with the requirements of the ***oCTMP*** and ***oTP***, with further details to be confirmed in the CTMP and TP.

Table 3-5 Noise and Vibration

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Noise and vibration due to construction activities potentially causing annoyance at noise sensitive receptors (NSRs) and damage to building structures. Construction traffic, plant and machinery noise at nearby noise sensitive receptors.	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: a. Ensuring that all appropriate processes, procedures and measures are in place to minimise noise before works begin and throughout the construction programme; b. All contractors to be made familiar with current legislation and the guidance in BS 5228 (Parts 1 and 2) (2014) which should form a prerequisite of their appointment; c. 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 onsite and control of working hours; d. Use of modern plant, complying with applicable UK noise emission requirements;	The CEMP (s) will also set out a scheme for the provision of monthly reporting of information to local residents to advise of potential noisy works that are due to take place. The CEMP (s) will set out a scheme for the monitoring of noise complaints and reporting to the Applicant for immediate investigation and action.

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	e. Hydraulic techniques for breaking to be used in preference to percussive techniques, where reasonably practicable; f. Drop heights of materials will be minimised; g. Unnecessary revving of engines will be avoided, and equipment will be switched off when not in use; h. Plant and vehicles will be sequentially started up rather than all together; i. Offsite pre-fabrication used where reasonably practicable; j. Use of screening locally around significant noise producing plant and activities. Screening would be designed to minimise landscape and visual impacts; k. Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications; l. All construction plant and equipment to be properly maintained, silenced where appropriate, operated to prevent excessive noise and switched off when not in use; m. Loading and unloading of vehicles, dismantling of equipment or moving equipment or materials around the Order limits to be	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	conducted in such a manner as to minimise noise generation, as far as reasonably practicable; n. All vehicles used onsite shall incorporate reversing warning devices as opposed to the typical tonal reversing alarms to minimise noise disturbance where reasonably practicable; o. Appropriate routing of construction traffic on public roads and along access tracks pursuant to the CTMP; p. Provision of information to local planning authorities and local residents to advise of potential noisy works that are due to take place; q. Section 61 Consents would be obtained for the Proposed Development which would include agreed construction noise limits for nearby noise sensitive receptors; r. Monitoring of noise complaints and reporting to the Applicant for immediate investigation and action. A display board will be installed onsite. 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; and s. Consideration will also be given to traffic routing, timing and access points to the Order limits to minimise noise impacts at existing receptors following appointment of a principal	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	construction contractor, and as construction working methods are developed. The contractor will issue a project route map and delivery schedule to control construction traffic. Management of heavy goods vehicles (HGVs) within the Order limits and being let onto the highway network will be managed through the CTMP developed pursuant to the ***oCTMP***. The relevant access route road surface will be checked prior to use.	
	HGV deliveries to the Order limits and works likely to generate substantial levels of noise, aside from HDD drilling, would not be undertaken on Saturday afternoons (13:00 onwards). Other construction activities unlikely to generate high noise levels (e.g. site access and inductions, light vehicle movements etc.) may continue during these hours. If percussive piling is used, within close proximity of NSRs, for the foundations of the Mounting Structures, this should be further restricted (when works are undertaken within 400m of residential properties) to no more than two periods of four hours each with at least one hour of no piling between these four-hour periods and restricted to the hours of 08:00 to 18:00 Monday to Friday and 08:00 to 12:00 on Saturdays.	Same as above.

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	Trenchless/HDD works will be completed in the shortest practical timescale and night-time noise generation minimised. To minimise the potential impacts on noise sensitive receptors, HDD will be at a minimum distance of 500m from the nearest residential property. If night-time operation is required, the closest residents to the works shall be notified of the start and completion of the works. The HDD plant would be installed and operated such that noise levels do not exceed a level of 45dB L_{Aeq} at the closest neighbouring noise-sensitive locations during night-time operation. Depending on the plant used, location, pit depth etc., this may require use acoustic screening using temporary solid barriers with a height of at least that of the drilling equipment, located in proximity (around 10m or less) of the trenchless drilling work.	Same as above.

Table 3-6 Air Quality

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Increased nitrogen dioxide (NO_2) and particulate matter (PM_{10} and $PM_{2.5}$) from onsite and offsite construction vehicle/plant emissions. Increased particulates and deposited dust from construction 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** a. Develop and implement a stakeholder communications plan that includes notifying communities before work commences onsite; b. Display the name and contact details of the Environment Manager(s) accountable for air quality and dust issues onsite. The head or regional office contact information will also be displayed; and A Dust Management Plan (DMP) in support of the CEMP(s). The level of detail will depend on the risk and should include as a minimum the recommended measures set out below. **Site Management** a. 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;	Measures in the CEMP (s) will include the implementation of inspection procedures onsite to periodically visually assess any dust and air pollution which may be generated. Additional monitoring measures will be provided in the CEMP (s).

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	b. Make the complaints log available to the local planning authorities upon request; c. 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; d. Sheet vehicles carrying dusty substrates; e. Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on un-surfaced haul roads and work areas; f. Use enclosed chutes, conveyors and covered skips, where practicable; g. Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate; and h. Ensure equipment is readily available onsite to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. **Monitoring** a. Agree dust monitoring locations and frequency with the local planning authorities as part of the CEMP;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	b. Undertake inspections, where receptors (including roads) are nearby and where access is granted to monitor dust, record inspection results, and make the log available to the local authorities when asked. This should include dust soiling checks of surfaces within publicly available land within 100m of the Order limits, with cleaning to be provided if necessary; c. Carry out site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local planning authorities when asked; d. Increase the frequency of site inspections by the Environmental Manager when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions; and e. Monitoring upwind and downwind of any dusty activities and close to sensitive receptors at the Order limits boundary. If required and where possible commence baseline monitoring at least three months before work on a phase commences.	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	Preparing the Order limits a. Design the layout so that machinery and dust causing activities are located away from receptors, as far as is possible; b. Erect solid screens or barriers around dusty activities that are at least as high as any stockpiles onsite where stockpiles are within 100m of receptors; c. Fully enclose the specific operations where there is a high potential for dust production and where construction works are active for an extensive period where operations are within 100m of receptors; d. Avoid site runoff of water or mud; e. Keep fencing, scaffolding and barriers clean using wet methods; f. Remove materials that have a potential to produce dust from the Order limits as soon as possible, unless being re-used onsite. If they are being re-used onsite cover as described below; and g. Cover, seed or fence stockpiles to prevent wind whipping.	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	Operating vehicle/machinery and sustainable travel a. Ensure all vehicles switch off engines when stationary i.e. no idling vehicles; b. Minimise the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable; and c. Ensure all non-road mobile machinery (NRMM) are regularly maintained and checked to minimise emissions. **Operation of Equipment** a. 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; b. Ensure an adequate water supply onsite for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate; and c. Ensure equipment is readily available onsite to clean any dry spillages and clean up spillages as	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	soon as reasonably practicable after the event using wet cleaning methods. **Waste** a. No bonfires and burning of waste materials will be carried out. **Earthworks** a. Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable; b. Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable; and c. Only remove the cover in small areas during work and not all at once. **Construction Works** a. Minimise scabbling (roughening of concrete surfaces) if possible; b. 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	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	which case ensure that appropriate additional control measures are in place; c. Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored appropriately with suitable emission control systems to prevent escape of material and overfilling during delivery; and d. For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust. **Track-out** a. Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the Order limits. This may require the sweeper being continuously in use; b. Minimise dry sweeping of large areas; c. Ensure vehicles entering and leaving the Order limits are covered to prevent escape of materials during transport; d. Inspect onsite haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	e. Record all inspections of haul routes and any subsequent action in a site logbook; f. Install hard permeable surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned; g. Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the Order limits where reasonably practicable); h. Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the Order limits exit, wherever Order limits size and layout permits; and i. Access gates to be located at least 10m from receptors where possible.	

Table 3-7 Water Resources and Ground Conditions

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Leakage or accidental spillage of construction materials and potential pollutants used onsite, 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 ***outline Water Management Plan (oWMP)*** **[EN010127/APP/7.13]** submitted with the DCO Application describes water management measures to control surface water runoff and drain hardstanding and other structures. This will be supported by a Pollution Prevention Plan (PPP), which is secured by this oCEMP. The ***oWMP*** comprises good practice construction methods and works that are established and effective measures to control surface water runoff and drain hardstanding to which the Applicant will be committed throughout the development process. Watercourses will be buffered by 10m and drains will be buffered by 6m, which infrastructure will not encroach on. **Management of Spillage Risk** The measures outlined below will be implemented through the CEMP(s) to manage the risk of accidental spillages onsite: a. Fuel will be stored and used in accordance with the prevailing regulations; currently the Control of Substances Hazardous to Health Regulations 2002, and the Control of Pollution (Oil Storage) (England) Regulations 2001. Particular care will be	Temporary drainage will be monitored throughout construction. Specific details will be confirmed in the WMP (s).

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	taken with the delivery and use of concrete and cement as it is highly corrosive and alkaline; b. 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); c. 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 offsite if possible or only at designated areas within the Order limits compound. Only construction equipment and vehicles free of all oil/fuel leaks will be permitted onsite. Drip trays will be placed below static mechanical plant; d. It is considered unlikely that the Proposed Development will require a high number of trips requiring the transportation of hazardous loads; however, if vehicles carrying hazardous loads during construction are required then they will be required to follow the regulations set out in the Health and Safety Executive's (HSE) Carriage of Dangerous Goods (2009);	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	Drivers must ensure that any 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: a. Information for each dangerous substance, material or article being carried; b. Emergency instructions in writing; and c. Means of identification, including a photograph of each member of the transportation crew. d. All drivers of vehicles carrying hazardous loads must be appropriately trained, so that they: e. Are aware of the hazards in the carriage of hazardous loads; f. Can take steps to reduce the likelihood of an accident taking place; g. 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 h. Have individual practical experience of the actions they will need to take.	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	The following measures will be in place to avoid contamination of the ground and watercourses: a. All washing down of vehicles and equipment will take place in designated areas and untreated wash water will be prevented from entering watercourses; b. 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; c. As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses; d. All fixed plant use onsite will be self-bunded; e. Mobile plant is to be in good working order, kept clean and fitted with plant 'nappies' at all times; f. 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 toolbox talks;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	g. Where required, the Order limits will be secured to prevent any vandalism that could lead to a pollution incident; h. Construction waste / debris are to be prevented from entering any surface water drainage or water body; i. 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; j. 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 Order limits for appropriate disposal at a suitably licenced waste facility; and k. 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.	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	In addition, any welfare facilities will be appropriately managed, and all foul waste disposed of by an appropriate contractor to a suitably licenced facility. **Watercourse Crossings** The use of in-situ fresh concrete in the construction of watercourse crossings will be avoided where possible by the use of pre-cast elements. Existing culverts may be upgraded and anticipated to be replaced with suitable pre-cast culvert designs. Ready-made concrete 'box style' or plastic culverts will be used. Existing culverts requiring an upgrade will be replaced using ready-made culverts. Culverts will be designed based on pre-works morphology surveys and best practice in order to minimise effects of developments on the natural integrity and continuity of water courses. The design will incorporate the following criteria: a. Culverts will be well bedded to avoid settlement and protected by an adequate cover of road material; b. The substrate and side/ head walls will be reinforced in order to prevent erosion; c. The culverts will be designed such that it does not cause a barrier to movement of fish or other aquatic fauna;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	d. The culvert type will be predominantly box culverts; e. Culvert floors will have the same gradient (not exceeding a slope of 3 %) and level, and carry similar bed material and flow, as the original steam; f. There shall be no hydraulic drop at the culvert inlet or outlet; g. The width of the culvert will be greater than the active channel width of the watercourse; h. Culverts will be used to conduct water under the solar park tracks; and i. Any fences or screens fitted on the inlet or outlet of the culvert will be designed to allow at least 230 mm of space between the bars of the screen of fence, up to the high water level. j. There is a preference to avoid construction in watercourses altogether through the use box culverts or bridges structures appropriately designed not to impede the flow of water and allow safe passage for wildlife, such as fish, water voles, otters etc. However, short and long term impact of designs should be considered, and there can be a case for using pipe or box culverts;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	k. When installing culverts, care will be taken to ensure that the construction does not pose a permanent obstruction to migrating species of fish, or riparian mammals (i.e. the crossings will make provision for fish and wildlife migration); l. Culverts should be sized so that they do not interfere with the bed of the stream post construction (i.e. the crossings will leave the watercourse in as natural condition as possible or permit reestablishment of substrate post construction); m. Single culverts will be used in preference to a series of smaller culverts that may be more likely to become blocked with flotsam and create erosion (i.e. the crossings will not constrict the channel); n. If any fish are found during the construction of any culverts, they will be removed to a place of safety if deemed necessary after consultation with the relevant fisheries interest; o. To minimise impacts on breeding of any fish found, then any in-stream works in these areas will be conducted during months which have less impact	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	on their breeding and development, where possible; p. Ease and speed of construction are important to minimise disruption to the watercourse and surrounding habitat; q. Designs should be low maintenance and where possible self-cleansing; and r. Structures should visually in keeping with the surroundings s. If required, each watercourse crossing shall be designed on a case by case basis to be appropriate for the width of watercourse being crossed, and the prevailing ecological and hydrological situation (i.e. the sensitivity of the watercourse). **Management of Flood Risk** The CEMP(s) that will be informed by this oCEMP will incorporate measures aimed at preventing an increase in flood risk during the construction works. Examples of measures that will be implemented onsite include: a. 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	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	be utilised for the storage of construction materials, this will be done in accordance with the applicable flood risk activity regulations, if required; b. Connectivity will be maintained between the floodplain and the adjacent watercourses, with no changes in ground levels within the floodplain as far as practicable; c. During the construction phase, the principal construction 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; d. The temporary construction compound areas, construction office and supervisor will be notified of any potential flood occurring by use of the Flood line Warnings Direct or equivalent service; e. The drainage systems will be designed so that there will be no significant increases in flood risk downstream during storms up to and including the 1 in 100 (1%) annual probability design flood, with an allowance of 20% for climate change;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	f. SuDS features will be utilised to ensure the Surface Water Drainage Strategy adequately attenuates and treats runoff from the Order limits, whilst minimising flood risk within the Order limits and surrounding areas; and g. There may be PV Modules (and string inverters) within Flood Zone 2; however, these would be designed to mitigate any flood risk to them. The detailed design would determine the various heights required, which are recommended to be at least 800mm. As part of the CEMP(s) the appointed principal construction contractor will be required to produce an Emergency Response Plan which will provide details of the response to an impending flood and include: a. A 24-hour availability and ability to mobilise staff in the event of a flood warning; b. 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 Order limits may be flooded;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	c. Details of the evacuation and site closedown procedures; d. Arrangements for removing any potentially hazardous material and anything capable of becoming entrained in floodwaters, from the temporary works areas; e. The appointed principal construction 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 principal construction contractor will implement more stringent protection measures; f. 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) and the Environmental Permitting Regulations (2016); and g. Safe egress and exits are to be maintained at all times when working in excavations. When working	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	in excavations a banksman is to be present at all times. Measures required for increased flood risk due to climate change are included in **Table 3-9.** There will be a dedicated Flood Warden with the responsibility to be prepared for, and manage, the response to flood incidents as secured by this oCEMP. The detail on procedures that the Flood Warden will follow will be set out in the CEMP(s).	
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 Order limits including the possible introduction of new fill materials.	The CEMP(s) informed by this oCEMP will include the following best practice avoidance and mitigation measures: a. All elements of the Solar Stations (i.e. central inverters, transformers and switchgear) will be mounted on adjustable legs or metal skids on concrete pad or concrete columns surrounded by permeable hardstanding; b. 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	Monitoring will be identified and detailed in the CEMP(s).

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	infrastructure, there is any interruption to existing land drainage, then new sections of drainage will be constructed. Infiltration drainage design will be in accordance with BRE 365; c. ***An Outline Surface Water Drainage Strategy*** has been prepared as ***Appendix 11.6*** of the ES which will outline how surface water runoff associated the Proposed Development will be intercepted, attenuated and discharged; d. Appropriate use of Personal Protective Equipment (PPE) and implementation and adherence to Health & Safety Protocols, Plans and Procedures; e. A Pollution Response Plan will be drafted as part of the CEMP(s) 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;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	f. 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 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; g. 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; h. An Emergency Spillage Action Plan will be produced, which all construction staff will have read and understood, and provisions made to contain	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	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; i. Workers will remain vigilant of ground conditions at all times and will report to the principal construction 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 principal construction 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 principal construction contractor will also be required to assess whether any additional health and safety measures are required; j. To further minimise the risks of contaminants being transferred and contaminating other soils or water,	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	construction workers will be briefed as to the possibility of the presence of such materials; k. In the event that contamination is identified, appropriate remediation measures will be taken to protect construction workers, future users, water resources, structures and services; l. The principal construction 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; m. 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; n. The length of time materials are stockpiled onsite 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; o. Dust generating equipment will be located to minimise potential nuisance impacts to receptors, as far as practicable.	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	p. The risk to surface water and groundwater from runoff 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; q. The principal construction 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; r. Any waters removed from excavations by dewatering will be discharged appropriately, subject to the relevant permits being obtained from the Environment Agency; s. The principal construction contractor will implement a dust suppression/management system in order to control the potential risk from airborne contamination migrating offsite to adjacent sites; t. Complaints about dust will be investigated at the earliest opportunity and appropriate action taken to	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	control the source or remedy the impact as appropriate; u. Access tracks will be regularly cleaned and damped down with water; v. All vehicles entering and leaving the Order limits 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 Order limits will be limited; w. 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; x. Work will be carried out in accordance with relevant Construction Design Management (CDM) Regulations 2015 details of these measures will be	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	presented within the Health and Safety Plan (H&SP) prepared as part of the CEMP (s); y. A competent/licensed contractor will survey (pre-site preparation survey as defined by the Health and Safety Executive (HSE)) and remove asbestos containing materials and other materials and structures contaminated with asbestos fibres; and z. Specification of concrete used in foundations and building structures will be selected based on the results of the chemical composition of the Order limits' soil and groundwater. Guidance is provided by the Building Research Establishment (BRE) series *'Concrete in Aggressive Ground'* (2005).	

Table 3-8 Agriculture and Land Use

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Loss of land from agricultural production. Impacts on soil. Impacts to agricultural businesses.	The ***oSMP*** and ***oEMMP*** will inform construction works to minimise the damage to soil structures during the construction phase, and provide amelioration to any localised impacts using good agricultural practices. The ***oSMP*** will inform the preparation of a SMP (incorporating the ***EMMP***) prepared prior to construction which will: a. a description of the soil types and their resilience to being trafficked; b. an outline description of proposed access routes and details of how access will be managed to minimise impacts on soils; c. a description of works and how soil damage will be minimised and ameliorated; and d. a methodology for monitoring soil condition, and criteria against which compliance will be assessed. The CEMP(s) will consider access routes to ensure ongoing access for husbandry and any land being cropped during the construction process, and to the need to adhere to precautions to minimise the risk of any spread of plants and seeds between agricultural holdings. The CEMP(s) will include measures to liaise with landowners and negotiate closure or severance of field accesses at key times of the farming year to mitigate potential short-term effects on farm businesses and enterprises as a result of construction.	Ongoing review during the installation period.

Table 3-9 Climate Change

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Greenhouse gas (GHG) emissions from construction vehicles and equipment Use of natural resources Increased ambient temperature due to climate change	The principal contractor as part of their strategy to reduce green house gas emissions during the construction phase will adopt best practice measures to control impacts, such measures to be included in the CEMP will include: a. Adopting the CCS (or its equivalent) to assist in the reduction of pollution, including GHG, from the Proposed Development by employing industry best practice measures. These will be listed in the CEMP (s); b. Encouraging the use of lower carbon modes of transport by identifying and communicating local bus services and pedestrian and cycle routes to and from the Order limits to all construction staff and providing facilities for the safe storage of cycles; c. Implementing a Travel Plan to reduce the use of private car journeys to the Order limits by construction staff and employees. d. Liaising with construction personnel for potential to implement staff minibuses and car sharing options;	Principal construction contractor to confirm in the CEMP (s).

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	e. Requiring the principal construction contractor to report on fuel consumption and carbon footprint following the construction of the Proposed Development; f. Prevent idling vehicles by switching vehicles and plant off when not in use and ensuring that all construction vehicles conform to current EU emissions standards; g. Conducting regular and planned maintenance of the construction plant and machinery to optimise efficiency; h. Increasing recyclability by segregating construction waste to be re-used and recycled where reasonably practicable; i. Disposing of construction waste locally where reasonably practicable to reduce emissions associated with transportation; j. Designing, constructing and implementing the Proposed Development 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	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	materials with a higher recycled content where feasible; and k. Reusing site-won materials to minimise the use of natural resources and unnecessary materials (e.g. reusing excavated soil for fill requirements). Mitigation measures embedded within the design of the Proposed Development to ensure its resilience to increased flood risk as a result of climate change are included in **Table 3-7**. The following measures are required to ensure safety of staff from increased flood risk onsite due to climate change: a. Health and safety plans will be required to account for potential climate change impacts on workers, such as flooding and heatwaves; b. Storing materials outside of flood extent as far as reasonably practicable; and c. Appointing at least one designated Flood Warden who is familiar with the risks and remains vigilant to news reports, Environment Agency flood warnings and water levels of the local waterways.	

Table 3-10 Socio-Economics

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Impacts to local residents, businesses and community facilities Disruption to users of Public Rights of Way Disruption to users of private access tracks	Access to all existing PRoW will be retained during the construction phase, with a limited number of temporary PRoW diversions to allow the construction of access tracks where they cross PRoW. The PRoW will be managed throughout the construction phase to ensure that they can continue to be used safely. It is important that public safety is maintained when there are moving vehicles along the construction routes within the Order limits. The proposed construction routes through the Order limits will be physically separated from existing PRoW, where possible, using perimeter fencing in the first instance or mesh, heras, or other similar types of fencing for a temporary period during construction, to maximise the safety of users. The existing PRoW will be reinstated when construction has been completed for that particular phase, albeit public access will be retained throughout as a result of the PRoW diversions. The minimum legal PRoW widths will be maintained for all PRoW throughout the construction phase. The proposed internal access tracks will cross the following PRoW within the Order Limits: a. Bridleway E169/1	To be confirmed in the CEMP (s).

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	b. Bridleway BrAW/1/1 During construction of the internal access tracks these PRoW will be temporarily diverted. Each minor diversion will be clearly marked out, along with appropriate signage at either end of the diversion which will take the most direct route possible. The diversion routes will be agreed with the relevant local authority for each diversion prior to construction of the Proposed Development. Once complete the proposed crossing points will be carefully managed to allow all users to safely pass through these areas as follows: a. Providing manned controls at each crossing point (such as marshals/ banksmen and gates as appropriate), with a default priority that construction traffic will give-way to other users; b. Providing advanced signage to warn users of the potential presence of construction vehicles; and c. Maximising visibility between construction vehicles and other users at the crossing points (through vegetation pruning for example). Where cabling works take place along or across access tracks, the Applicant will liaise with all parties who utilise those tracks	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	prior to the works taking place to confirm proposed access arrangements for them whilst those works are carried out.	

Table 3-11 Arboriculture

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Impact to trees	A detailed Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) will be prepared and will form part of the CEMP(s). The AMS and TPP will identify the specification for tree protection measures and the methodology for sensitive works in proximity to retained trees during construction and be in accordance with the requirements of BS 5837:2012. A pre-construction tree survey will be undertaken where construction works are likely to affect trees. The findings and recommendations of these will be taken into account by the appointed principal construction 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'. All necessary protective fencing provided for the safeguarding of trees will be erected prior to the commencement of any clearance or construction works. This fencing must have all weather notices attached stating "Construction Exclusion Zone – No Access" and, will not be removed or altered without the prior consent of the Local Planning Authority.	A pre-construction arboriculture survey in line with BS 5837:2012 will be undertaken concurrently with the detailed design of the Proposed Development, to identify where trees are likely to be affected by the construction works and to inform the development of the detailed design. In accordance with item 6.3 of BS 5837:2012, regular monitoring by a competent arboriculturalist will be undertaken to ensure that the arboricultural aspects (e.g. the installation and maintenance of protective measures and the supervision of specialist working techniques) are implemented.

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	Prior to and during all construction works onsite, no spoil or construction materials will be stored within the Root Protection Area (RPA) of any tree on, or adjacent to the Order limits. Any encroachment within the RPAs for such works will only be with the prior agreement of the Local Planning Authority. If it is necessary to excavate so close to trees that roots greater than 50mm diameter are likely to be encountered, particular care will be taken to avoid damage. Excavation in these areas will be undertaken by hand or using an air spade, avoiding any damage to the bark. The roots will be surrounded with sharp sand prior to the replacing of any soil or other material in the vicinity. If it is necessary to raise levels, it is essential that adequate supplies of water and oxygen pass through the soil to the trees' roots. Therefore, where necessary, a granular material will be used which will not inhibit gaseous diffusion. Possible options are no-fines gravel, cobbles or, Type 2 road-stone. All hard surfaces will be of suitable specification to allow such gaseous diffusion.	

Table 3-12 Waste

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately.	The principal construction 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 onsite for appropriate re-use, recycling and recovery, with landfill as a last resort. This will be achieved by a combination of measures, including: a. The principal construction contractor will prepare and implement a CRMP as part of the CEMP(s), which will set out targets for fuel, waste and energy consumption; b. All waste transported offsite will be delivered to the appropriately licenced receivers of such materials; and c. As part of the CRMP, the principal construction contractor will segregate construction waste to be re-used and recycled where reasonably practicable. All soil to be reused onsite or disposed	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 Order limits will be maintained to provide a suitable audit trail for compliance purposes and to facilitate monitoring and reporting of waste types, quantities and management methods.

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	of off-site will be appropriately characterised by the principal construction contractor. **Waste Hierarchy** The Waste (England and Wales) Regulations 2011 place a duty on all persons who produce, keep or manage waste to apply the 'Waste Hierarchy' in order to minimise waste production at every stage of the development. The 'Waste Hierarchy' promotes selection of the Best Practicable Environmental Option (BPEO) and preferred option for management of waste. The core waste management principles of prevention, reuse, recycle, recover and disposal as defined in the 'Waste Hierarchy' will be embedded within the DEMP (s), produced prior to decommissioning. The separation of waste will be carried out at the source in order to maximise opportunities for reuse and recycling. Segregation of waste will require training, monitoring and enforcement. All areas used for temporary storage of waste within the Order limits will comply with DEFRA and the Environment Agency (EA) guidelines relevant at the point of decommissioning and will be clearly signed. Waste storage facilities will be provided at source using the best environmental options available. Any hazardous or special waste will be stored in separate, secure containers and clearly identified as such.	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	Waste Disposal Disposal activities will also be carried out in accordance with the relevant Pollution Prevention Guidelines (or any relevant successive guidance in place) in order to ensure compliance with current waste legislation. All waste transported offsite will be delivered to the appropriately licenced receivers of such materials. Waste transportation will take place at regular intervals to avoid the accrual of waste. Only registered waste carriers will be authorised to transport waste and a Waste Transfer Note (WTN) will be completed for each load of waste, which must contain a record of their waste carrier registration number. Copies of each WTN will be filed as an appendix to the CEMP(s) and held for a minimum of two years. The appropriate European Waste Catalogue (EWC) code will be noted on the WTN, in addition to how it is contained. All sites receiving waste must have an appropriate permit, licence or registration exemption, the details of which should also be recorded. **Hazardous Waste** If required, the EA will be advised in advance of any hazardous waste movements and Waste Consignment Notes (WCNs) will be purchased in advance for this type of waste transportation. These consignment notes will be held for a minimum of three years. Burning of waste or unwanted materials will not be	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	permitted onsite. 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. All fuel and oil will be stored within the Order limits and contained by a small bund constructed from material sourced onsite and lined with an impermeable membrane in order to prevent any contamination of the surrounding soils, vegetation and water table, in accordance with Defra and Environmental Agency Oil Storage Regulations for Businesses 2015 (as amended in 2020) (or latest guidance/legislation at the point of decommissioning). Any contaminated runoff within the bund will be disposed of at an appropriate waste management facility. Any used (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with the COSHH regulations (or latest guidance/legislation at the point of decommissioning) and in accordance with the Emergency Spillage Action Plan. **Waste from Welfare and Domestic Facilities** Temporary welfare facilities will be provided during the decommissioning phase. These facilities will include toilets, washing and drinking water. This will include a cess tank that will be periodically emptied and taken offsite by a licensed waste	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	operator. All onsite welfare facilities will be clearly signposted and maintained. Where excess surface water occurs from the area of the buildings, this will be collected and treated in a Sustainable Drainage System (SuDS), prior to discharge. Effluent and waste from onsite construction personnel will be treated at a package sewage treatment plant or a septic tank and discharged into a properly designed and sized drainage field, in accordance with Defra's GPP4 (2021), subject to obtaining the required consents. Collection facilities for other domestic refuse will be provided to segregate waste. These facilities will be clearly marked, positioned in appropriate locations and protected from the weather and animals. To minimise impacts of waste on the surrounding environment, the following measures will be implemented: a. Offsite pre-fabrication, where reasonably practicable, including the use of prefabricated 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 Substation;	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	b. Burning of waste or unwanted materials will not be permitted onsite; c. 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; d. Materials requiring removal from the Order limits 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, and that the appropriate permits and transfer notes are in place prior to removal of waste; and e. Prior to commencement of construction, suitable recycling and landfill facilities with sufficient capacity to receive the quantities of construction waste expected will be identified. **Site Preparation and Construction** In order to control the waste generated during site preparation and construction, the contractor(s) will separate the main waste streams on-site, prior to transport to an approved, licensed third	

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
	party waste facility for recycling or disposal. Prior to construction, a Construction Resource Management Plan (CRMP) will be prepared by the contractor(s) as part of the detailed Construction Environmental Management Plan (CEMP), which will specify the waste streams which would be monitored and targets set with regards to the waste produced, including any re-use and recycling of materials. The CRMP will be finalised with specific measures to be implemented prior to the start of construction. All waste to be removed from the Order limits will be undertaken by fully licensed waste carriers and taken to licensed waste facilities.	

Table 3-13 Major Accidents and Disasters

Potential Impact	Mitigation and/or Enhancement Measure	Requirement for Monitoring
The incidence of major accidents and disasters as a result of the Proposed Development. Potential impacts on the Proposed Development as a result of major accidents and disasters.	All works will be undertaken in accordance with the Building Regulations, NHS England Emergency Preparedness, Resilience and Response Framework, Health and Safety at Work Act 1974, Safety at Work Regulations 1999, CDM Regulations 2015, Railway Operator Regulatory Requirements, 999 emergency service response procedure and call/response procedure to report utility system failures. 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 principal construction contractor prior to construction, which will be implemented to minimise the risk of accidents and disasters onsite. Furthers risks of major accidents and disasters are covered **Table 3-4, Table 3-7** and **Table 3-12.**	To be confirmed in the CEMP(s).

4.0 Implementation

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

a. An organogram showing team roles, names and responsibilities;
b. Training requirements for relevant personnel on environmental topics;
c. Information onsite 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 methods;
f. Document control; and
g. Environmental emergency procedures.

5.0 Monitoring and Recording

5.1. Monitoring

5.1.1. Environmental monitoring of the Proposed Development and its impacts will be undertaken throughout the construction phase.

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

5.1.3. During construction, the Environmental Manager 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. The Environmental Manager and /or the Construction Project Manager will arrange regular formal inspections to ensure the requirements of the CEMP(s) are being adhered to. After completion of the works, the Environmental Manager will conduct a final review.

5.1.4. A Community Liaison Officer will be appointed to respond to any complaints raised by the local communities (or other stakeholders) during construction. Contact details will also be available on the display board at the Order limits entrance should anyone wish to make contact. 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 AIL deliveries or new phases of work to ensure that the local community remain up to date.

5.2. Records

5.2.1. The Environmental 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/ Construction Project Manager;
d. Other environmental surveys and investigations; and
e. Environmental equipment test records.

5.2.2. The CEMP(s) will be updated as necessary, with a full review as required (at least quarterly) throughout the construction period. A brief report will be produced and submitted to the relevant local planning authorities 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.