



# One Earth Solar Farm

**Volume 7.0: Other Documents [EN010159]**

**Outline Decommissioning Environmental Management Plan  
(including restoration)**

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## Contents

<b>1. Introduction</b>	<b>5</b>
1.1 Introduction	5
1.2 Complementary Plans and Procedures	7
1.3 The Site	8
1.4 The Proposed Development	8
<b>2. Decommissioning Environmental Management</b>	<b>9</b>
2.1 Introduction	9
2.2 Decommissioning Activities	9
2.3 Roles and Responsibilities	9
2.4 Decommissioning Programme	14
2.5 Working Hours	14
2.6 Control of Noise	14
2.7 Control of Light	15
2.8 Recovery, Recycling and Disposing of Waste	15
2.9 Security	16
2.10 Good Practice	16
2.11 Public Communication and Liaison	17
<b>3. Mitigation and Monitoring</b>	<b>18</b>
3.1 Purpose	18
<b>4. Implementation and Operation</b>	<b><del>57</del>55</b>
<b>5. Checking and Corrective Action</b>	<b><del>58</del>56</b>
5.1 Monitoring and Reporting	<del>58</del> 56
5.2 Records	<del>58</del> 56
5.3 Management Review	<del>59</del> 57



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Table of Tables

Table 2.1: Project roles and environmental responsibilities	11
Table 3.1. Climate Change	19
Table 3.2. Buried Heritage	20
Table 3.3. Cultural Heritage	<del>21</del> 20
Table 3.4. Ecology	21
Table 3.5. Hydrology	27
Table 3.6. Landscape and Visual Amenity	<del>33</del> 32
Table 3.7. Arboriculture Impact Assessment	<del>34</del> 33
Table 3.8 Noise and Vibration	<del>35</del> 34
Table 3.9. Socio-Economics and Land Use	<del>38</del> 37
Table 3.10. Transport and Access	<del>39</del> 38
Table 3.11. Human Health	<del>42</del> 41
Table 3.12. Soils and Agricultural Land	<del>42</del> 41
Table 3.13. Telecommunications, Television Reception and Utilities	<del>45</del> 44
Table 3.14. Waste	<del>45</del> 44
Table 3.15. Major Accidents and Disasters	<del>47</del> 46
Table 3.16. Air Quality	<del>48</del> 47
Table 3.17. Ground Conditions	<del>53</del> 52

## Abbreviations and Acronyms

Term	Meaning
ACM	Asbestos Containing material
ACoW	Archaeological Clerk of Works
AEP	Annual Exceedance Probability
AIL	Abnormal Invisible Loads
ALC	Agricultural Land Classification
AMS	Arboricultural Method Statement
BESS	Battery Energy Storage System
BMV	Best and Most Versatile
BNG	Biodiversity Net Gain
BPM	Best Practicable Means
CCS	Considerate Constructors Scheme
CCTV	Closed-circuit television
DAD	Design Approach Document
DCO	Development Consent Order
DEMP	Decommissioning Environmental Management Plan
DMP	Dust Management Plan
DTMP	Decommissioning Traffic Management Plan
EA	Environment Agency
EcoCoW	Ecological Clerk of Works
ECoW	Environmental Clerk of Works
EIA	Environmental Impact Assessment
ERP	Emergency Response Plan
ES	Environmental Statement

Term	Meaning
GHG	Greenhouse Gases
GPP	Guidance for Pollution Prevention
ha	Hectares
HGV	Heavy Goods Vehicles
IAQM	Institute of Air Quality Management
INNS	Invasive Non-Native Species
IR	Infrared
LGP	Low Ground Pressure
LPA	Local Planning Authority
MW	megawatts
NO <sub>2</sub>	Nitrogen Dioxide
NSR	Noise Sensitive Receptors
oCEMP	Outline Construction Environmental Management Plan
oCTMP	Outline Construction Traffic Management Plan
oDEMP	Outline Decommissioning Environmental Plan (including restoration)
OEMP	Operational Environmental Management Plan
oLEMP	Outline Landscape and Ecology Management Plan
oOEMP	Outline Operational Environmental Management Plan
oPROW MP	Outline Public Rights of Way Management Plan
oSMP	Outline Soil Management Plan
PIR	Passive Infra-Red
PM <sub>10</sub>	Particulate Matter
PPE	Personal Protective Equipment
PRoW	Public Rights of Way



Term	Meaning
PRoWMP	Public Rights of Way Management Plan
PV	Photovoltaic
RACIM	Responsible, Accountable, Consulted, Informed and Monitor
RAMS	Risk Assessment Method Statement
RPA	Root Protection Area
S61	Section 61
SAC	Special Area of Conservation
SMP	Soil Management Plan
SRN	Strategic Road Network
SSSI	Site of Special Scientific Interest
TPP	Tree Protection Plan
WCA	Wildlife and Countryside Act

## 1. Introduction

### 1.1 Introduction

1.1.1 One Earth Solar Farm Ltd (hereafter referred to as the 'Applicant') has prepared this Outline Decommissioning Environmental Management Plan (including restoration) (oDEMP) in relation to an application for a Development Consent Order (DCO) for the construction, operation and maintenance and decommissioning of the One Earth Farm (hereafter referred to as the 'Proposed Development'). A Decommissioning Environmental Management Plan (DEMP) will be produced for the Proposed Development prior to the date of decommissioning. The terminology used in this document is defined in the **Glossary of Terms and Abbreviations [EN010159/APP/7.17]**.

1.1.2 This document has been updated at **Deadline 34**. The document references have not been updated from the original submission. Please refer to the Guide to the Application **[EN010159/APP/1.3.42]** for the list of current versions of documents.

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1.1.3 The Proposed Development comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) array electricity generating facility. The project includes solar PV arrays, Battery Energy Storage Systems (BESS), onsite substations and associated grid connection infrastructure which will allow for the generation and export of electricity to the proposed National Grid High Marnham Substation. The Applicant has secured a connection agreement with National Grid which will allow export and import of up to 740 megawatts (MW) of electricity to the National Grid High Marnham Substation. Further detail is provided in **ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5]**.

1.1.4 The purpose of the oDEMP is to provide the framework through which the DEMP will be implemented, which in turn will detail how environmental measures for the management of decommissioning activities for the Proposed Development will be achieved. The DEMP(s) will be produced in line with this oDEMP following the grant of the DCO when the Proposed Development is due to be decommissioned. It will then be submitted to the appropriate Local Planning Authorities (LPA) for approval, in accordance with a Requirement of the **Draft DCO [EN010159/APP/3.1]**.

1.1.5 Decommissioning comprises the process of removing all solar PV arrays and BESS infrastructure including modules, mounting structures, cabling, substations, Power Conversion System (PCS) and transformers (including concrete and hardstanding), for recycling or disposal in accordance with good practice and market conditions at that time.

1.1.6 Within the solar PV and BESS Site the physical infrastructure will be removed to plough depth and the land returned to the landowners. This will include

restoration of areas of agricultural land where the agricultural resource has been maintained (and potentially improved) during operation, and the established habitats, and all other areas within the Order Limits. Post-decommissioning, the landowner may return the Site to its original use. It is anticipated that some areas of habitat and biodiversity mitigation and enhancement may be left in-situ for species protection at the discretion of the landowners, but statutory Biodiversity Net Gain (BNG) metrics are expected to be met in advance of decommissioning. Any required species licences would be obtained for reinstatement works undertaken by the Applicant if necessary.

- 1.1.7 The mode of cable decommissioning for the grid connection and other underground cables will be dependent upon government policy and best practice at that time. Currently, the most environmentally acceptable option is leaving the cables in situ, as this avoids disturbance to overlying land and habitats and to neighbouring communities. Alternatively, the cables can be removed by opening the ground at regular intervals and pulling the cable through to the extraction point, avoiding the need to open cut the entire length of the cable route.
- 1.1.8 This document does not address the construction or operational activities, which are subject to separate environmental management plans and procedures within the **Outline Construction Environmental Management Plan [EN010159/APP/7.4]** (oCEMP) and **Outline Operational Environmental Management Plan [EN010159/APP/7.5]** (oOEMP).
- 1.1.9 An Environmental Impact Assessment (EIA) has been undertaken for the Proposed Development and an Environmental Statement (ES) has been prepared in accordance with the Infrastructure Planning (EIA) Regulations 2017 (EIA Regulations). In accordance with the requirements of the EIA Regulations, the ES contains the assessment of the likely significant effects on the environment that may be caused during the operational phase of the Proposed Development and describes a range of 'industry standard' or best practice mitigation and decommissioning management measures. These matters have informed the development of the oDEMP.
- 1.1.10 DEMP's will be prepared, approved, and implemented for individual elements of the Proposed Development (e.g. one DEMP for works in the grid connection corridor and associated site accesses, and one for works in the solar PV and BESS site, interconnecting cable corridor, and associated site accesses). As a result, there could be multiple DEMP's prepared in accordance with the parts of this oDEMP.
- 1.1.11 The nature of the decommissioning activities and potential for likely significant effects would be similar to construction. The DEMP(s) will therefore include similar measures to those included in the **Outline Construction Environmental Management Plan [EN010159/APP/7.4]** submitted within the DCO Application, covering issues such as transportation methods, pollution prevention, and noise management.



1.1.12 The key elements of this oDEMP are:

- > An overview of the Site, Proposed Development, decommissioning activities and programme;
- > Prior assessment of potential environmental impacts (through the EIA);
- > Proposed mitigation measures to prevent or reduce likely significant effects;
- > Monitoring and reporting of effectiveness of mitigation measures;
- > Corrective action procedure; and
- > Links to other complementary plans and procedures.

1.1.13 In summary, this oDEMP will identify how commitments made in the ES will be translated into actions on site during decommissioning and includes a process from implementing the actions through to the allocation of key roles and responsibilities.

1.1.14 The appointed contractor(s) will be responsible for working in accordance with the environmental controls documented in the DEMP which will be prepared in accordance with this oDEMP, as a requirement of the DCO. The overall responsibility for implementation of the DEMP will lie with the Contractor as a contractual responsibility to the Applicant, as the Applicant is ultimately responsible for compliance with the Requirements of the DCO.

1.1.15 This oDEMP has been designed with the objective of compliance with the relevant environmental legislation, and the mitigation measures set out within the ES.

1.1.16 Any additional licences, permits or approvals that are required will be listed in the DEMP, including any environmental information submitted in respect of them.

## 1.2 Complementary Plans and Procedures

1.2.1 A suite of complementary environmental plans and procedures for the decommissioning phase will be developed alongside the DEMP. These plans and procedures will build on the principles and procedures set out in this oDEMP and described in the ES. These supporting and supplementary plans and procedures will be clearly outlined in the DEMP(s) and cross referenced.

1.2.2 A Decommissioning Traffic Management Plan (DTMP) will be provided as part of the DEMP. This will be produced at a later stage and will include discussion on the proposed traffic management for decommissioning vehicles as well as their impact on the surrounding area.



### 1.3 The Site

- 1.3.1 A description of the Site is included in **ES Volume 1, Chapter 3: Description of the Site and Surrounding Area [EN010159/APP/6.3]**.

### 1.4 The Proposed Development

- 1.4.1 A description of the Proposed Development is presented in **ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5]**.

## 2. Decommissioning Environmental Management

### 2.1 Introduction

- 2.1.1 This section sets out the decommissioning activities for the Proposed Development.

### 2.2 Decommissioning Activities

- 2.2.1 The design life of the Proposed Development is 60 years with decommissioning to commence 60 years after final commissioning (currently anticipated to be 2030). Decommissioning is therefore anticipated to commence in 2090.

- 2.2.2 When the operational phase ends, the solar farm will require decommissioning. All PV modules, BESS containers, mounting poles, PCS, transformers and switchgear would be removed and recycled or disposed of in accordance with good practice and market conditions at the time. ~~Buried on-site (low voltage) cables would be removed. Buried interconnecting cables (medium voltage) and cable ducts would either be removed or left in situ providing the depth of installation was below 0.9 m~~ are proposed to remain in place, unless the prevailing guidance at the time of decommissioning is for the removal of underground cables and would not interfere with normal agricultural operations (ploughing or subsoiling, typ. To a max of 450mm). The majority of the Site would be returned to the landowner after decommissioning and will be available for its original use.

- 2.2.3 The specific method of decommissioning the Proposed Development at the end of its operational life is uncertain at present as the engineering approaches to decommissioning will evolve over the operational life of the Proposed Development.

- 2.2.4 It is anticipated that some areas of habitat and biodiversity mitigation and enhancement may be left in-situ for species protection. Any required species licences would be obtained for reinstatement works if necessary. Public Rights of Way and Permissive Path actions are detailed within the **Outline Public Rights of Way Management Plan [EN010159/APP/7.14]** (oPROW MP).

### 2.3 Roles and Responsibilities

- 2.3.1 Key roles and responsibilities during the decommissioning phase in managing environmental impacts will likely include, but are not limited to:

- > Site Manager – Overall responsibility for activity onsite and will be based onsite full time.

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- > Decommissioning Project Manager - Overall responsibility for ensuring all elements in the DCO, DEMP(s) and all environmental legal and other requirements are implemented, and appropriately resourced, managed, reviewed and reported.
- > Environment Manager - Responsible for the overall management of environmental aspects on site, ensuring environmental legislation and best practices are complied with, and environmental mitigation and monitoring measures identified are implemented. The Environment Manager will oversee environmental monitoring on-site 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.
- > Environmental Clerk of Works (ECoW) – Oversee the management of and provide advice about environmental and ecological risks during decommissioning including for example, management of protected species, surface water management, pollution, air quality and noise.
- > Ecological Clerk of Works (EcoCoW) - Management of the risks to biodiversity on decommissioning sites, advising protecting valued biodiversity features and providing practical solutions.
- > Flood Warden – There will be a dedicated responsibility to be prepared for, and manage, the response to flood incidents.
- > Health and Safety Manager – Responsible for the monitoring and controlling of health and safety compliance and related rules and regulations on-site.
- > Community Liaison Officer - A Community Liaison Group will be set up in accordance with the relevant DCO requirement prior to decommissioning of the Proposed Development as a formal forum for local issues to be raised. A Community Liaison Officer will be appointed to lead discussions with local communities, and act as the primary point of contact should there be any queries or complaints.

2.3.2 The roles and responsibilities for different tasks are listed in **Table 2.1** using the RACIM (responsible, accountable, consulted, informed and monitor) system.

2.3.3 These roles and responsibilities are indicative and will be confirmed in the DEMP(s).

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Table 2.1: Project roles and environmental responsibilities

Process Task	Role <sup>1</sup>				
	Site Manager	Decommissioning Project Manager	Environmental Manager / ECoW / EcoCoW	Health and Safety Manager / Flood Warden	Community Liaison Officer
Developing and maintaining the DEMP	C	M	R	A	I
Monitor environmental aspects through review of method statements, identify and control issues	A	M	R	R	I
Monitoring works to ensure any necessary environmental issues and control measures are in place; ensuring they are effectively communicated, appropriate and implemented on site	A	M	R	C	I
Ensuring the work is performed by trained and qualified staff; and providing training where necessary	A	M	R	C	I

#### <sup>1</sup> RACIM Details

**R – Responsible:** The individual(s) who perform an activity responsible for action/implementation – although usually only one, R's can be shared.

**A – Accountable:** The individual who is ultimately accountable including yes/no decision and power of veto – only one (A) can be assigned.

**C – Consulted:** The individual(s) to be consulted prior to a final decision being made of action taken – two-way communication.

**I – Informed:** The individual(s) who need to be informed after a decision is made or action is taken – one-way communication.

**M – Monitor:** Monitor the delivery of the proposed development on behalf of third parties and report on compliance.



Process Task	Role <sup>1</sup>				
	Site Manager	Decommissioning Project Manager	Environmental Manager / ECoW / EcoCoW	Health and Safety Manager / Flood Warden	Community Liaison Officer
Ensuring the adequate resources are allocated for environmental management	R	M	M	I	I
Ensuring that all relevant environmental documentation and information (including permission, consents, permits and assessments) is communicated	R	M	M	C	I
Regular site inspections and maintaining a record of environmental performance and reporting performance and monitoring environmental performance	C	M	M	R	I
Following good practice and minimising impact on the environment	A	M	M	R	I
Understanding project environmental obligations and mitigation measures	A	M	M	R	I
Liaison with local authority, other statutory bodies, members of the public, press and the media	A	M	M	C	R
Supporting all site staff with environmental management including reviewing and commenting on method statements and risk assessments	R	M	M	R	I
Ensuring that the environmental policy of the client is delivered	A	M	M	R	I



Process Task	Role <sup>1</sup>				
	Site Manager	Decommissioning Project Manager	Environmental Manager / ECoW / EcoCoW	Health and Safety Manager / Flood Warden	Community Liaison Officer
Providing information on waste management/reduction procedures to relevant staff	A	M	M	R	I



## 2.4 Decommissioning Programme

- 2.4.1 Decommissioning is expected to commence in 2090 and take between 24 and 48 months. Decommissioning would most likely be undertaken sequentially.
- 2.4.2 More details on the sequence and programme of decommissioning will be provided with the DEMP, to include timescales and transportation methods which would be agreed in advance with the relevant LPA, as secured through a Requirement in the DCO.

## 2.5 Working Hours

- 2.5.1 The core working hours are defined as:
- > Monday to Saturday 07.00 to 19.00 (daylight hours permitting);
  - > No Sunday, Bank Holiday or overnight working unless crucial to decommissioning or in an emergency.
- 2.5.2 Emergency working may extend beyond the times quoted above timescales. These will be discussed with the relevant LPA at the time.
- 2.5.3 Working hours may be shortened if working would necessitate artificial lighting and therefore the working day will be shorter in the winter months. It is not possible to avoid working in the winter period due to the length of the decommissioning programme. However, works requiring the disturbance of soils will be prioritised during the drier summer months where practicable. These will be discussed with the relevant LPA at the time.
- 2.5.4 Quiet, non-intrusive works such as the removal of solar PV panels may take place over longer working hours during the summer months. These will be discussed with the relevant LPA at the time.

## 2.6 Control of Noise

- 2.6.1 Where on-site works are to be conducted outside the core working hours, they will comply with any restrictions agreed with the relevant planning authorities through the voluntary Section 61 (S61) consent process, in particular regarding the control of noise and traffic. Compliance with these noise limits will ensure adverse effects are unlikely. Abnormal or emergency construction traffic movements may occur outside of normal working hours. In the event of these occurrences, specific noise mitigation measures will be put in place to reduce potential noise impacts at nearby noise sensitive receptors.





## 2.7 Control of Light

- 2.7.1 Decommissioning works will generally be limited to daylight hours only, with focussed task specific lighting provided where this is not practicable. These will be discussed with the relevant LPA at the time. Within temporary compounds and laydown areas task specific and fixed 'general' lighting may be required in winter periods (early mornings and up to 19:00 hours for general workforce) to meet safety requirements. Additionally, lighting would be used by the roving security teams during their regular checks and 'emergency' visits (if an alert is triggered).
- 2.7.2 Outside of core working hours Passive Infra-Red (PIR) controlled lights (motion sensors) will be used at temporary compounds and at welfare areas. The closed-circuit television (CCTV) system will also use Infrared (IR) lighting to provide night vision functionality meaning that no visible lighting will be needed for the security system.
- 2.7.3 Lighting will be directional with care to minimise potential for light spillage beyond the site particularly towards houses, live traffic, and habitats, and will be designed with reference to legislation and guidance at the time, in so far as it is reasonably practicable.
- 2.7.4 Where the use of security cameras is required, no visible lighting will be needed as IR lighting will be provided by the CCTV/security system to provide night vision functionality for CCTV.

## 2.8 Recovery, Recycling and Disposing of Waste

- 2.8.1 Details of the waste strategy are presented in the **Outline Site Waste Management Plan [EN010159/APP/7.12]**.
- 2.8.2 The Applicant is committed to 100% reuse and recycling of solar panels during decommissioning.
- 2.8.3 The Contactor will separate the main waste streams on-site, prior to transport to an approved, licensed third party waste facility for recovery, recycling or disposal.
- 2.8.4 The wastes generated at decommissioning will primarily be the electrical components of the solar PV and BESS Site, the solar PV frames, and fencing. Prior to the decommissioning works commencing, the DEMP developed by the contractor will provide a waste estimate, and specify key responsibilities, reporting and auditing requirements and waste recovery targets.
- 2.8.5 Waste Duty of Care will be ensured with respect to all waste generated on Site. All waste to be removed from the Order Limits will be undertaken by fully licensed waste carriers and taken to suitably licensed waste management facilities and managed in line with the requirements of the Waste (England and Wales)



Regulations (2011) and the Hazardous Waste (England and Wales) Regulations (2005) (as amended). The Scheme will apply the waste management hierarchy, in priority order: prevention, preparation for reuse, recycle, other recovery and disposal.

2.8.6 If required, a Materials Management Plan (MMP) would be developed under the Contaminated Land: Applications in Real Environments (CL:AIRE) Definition of Waste: Development Industry Code of Practice by the appointed decommissioning contractor to support the reuse of excavated materials, minimise off-site disposal, and to demonstrate the necessary lines of evidence to support the proper reuse/off-site disposal of materials and ensure compliance with regulatory guidance.

2.8.7 To ensure the cumulative generation of waste is managed appropriately, the Applicant commits to working collaboratively to:

- > Share data and reporting on waste types and volumes to support regional waste planning and avoid overburdening local waste infrastructure;
- > Engage with the host authorities and waste planning bodies to ensure consistency with regional waste management strategies and capacity constraints; and
- > Review and update waste mitigation measures regularly through continued dialogue with other developers post-consent.

## 2.9 Security

2.9.1 Site security during decommissioning will be managed by the Contractor. The Site perimeter fencing will remain in place throughout the duration of the decommissioning works, being the last element of infrastructure to be removed. It is anticipated that the perimeter CCTV system will be one of the last elements to be decommissioned, and that temporary CCTV may also be installed at strategic locations for example to monitor construction compounds and accesses into the Site.

2.9.2 Storage of materials will be kept secure to prevent theft or vandalism. A safe system for accessing the materials storage areas would be implemented.

## 2.10 Good Practice

2.10.1 The Considerate Constructors Scheme (CCS) (or equivalent measure in place at the time of decommissioning) will be adopted to assist in reducing pollution and nuisance from the decommissioning of the Proposed Development, by employing best practice measures which go beyond statutory compliance, where relevant to decommissioning.



## 2.11 Public Communication and Liaison

- 2.11.1 Prior to the commencement of decommissioning, the Contractor will develop and implement a Stakeholder Communications Plan that includes community engagement and will detail a complaints procedure. In line with the decommissioning Stakeholder Communications Plan, it is likely that a display board will be installed on-site, and a website will be set up. These will include contact details for the Site Manager or alternative public interface with whom nuisance or complaints can be lodged, and the head or regional office contact information. A logbook of complaints will be prepared and managed by the Site Manager or nominated representative.
- 2.11.2 Any environmental complaints received will be investigated, with appropriate action taken and recorded, so that a full audit trail is available should the complainant raise the issue(s) with the local authority.
- 2.11.3 A Community Liaison Group will also be set up prior to decommissioning and a Community Liaison Officer (or alternative) will be appointed to lead discussions with local communities during the decommissioning works.



### 3. Mitigation and Monitoring

#### 3.1 Purpose

- 3.1.1 This section of the oDEMP sets out the mitigation measures to be included as a minimum in the DEMP(s). It also sets out monitoring requirements and the responsible party identified for each mitigation measure or monitoring requirement. This section will be updated and developed following consent as part of the preparation of the DEMP(s).
- 3.1.2 It is assumed that all mitigation is in line with the regulations and guidance at the time when decommissioning is undertaken, estimated in 2090. The following tables present likely mitigation based on present baseline information against current legislation. All mitigation will need to be reviewed and updated prior to decommissioning against the baseline environment at that time.
- 3.1.3 The overall responsibility will be with the Applicant for roles in **Table 3.1** **Table 3.4** to **Table 3.17** **Table 3.17** unless otherwise specified. These specific responsibilities will be confirmed in the DEMP.

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Table 3.1. Climate Change

Potential Impact	Mitigation Measures	Monitoring Requirements
<p>Greenhouse Gas (GHG) emissions from construction traffic (including vehicles on site and transportation of materials) and end embodied emissions of materials and products.</p> <p>Increased flood risk on-site due to climate change needing to be considered in the design,</p> <p>Impact on workers – for example flooding and heatwaves</p>	<p>Appropriate standard and good practice control measures will be included in the DEMP. Health and safety plans developed for decommissioning activities will be required to account for potential climate change impacts on workers, such as flooding and heatwaves. To include measures such as toolbox talks on training on dangers of extreme weather conditions;</p> <p>Encouraging the use of lower carbon modes of transport by identifying and communicating local bus connections and pedestrian and cycle access routes to/from the Proposed Development to all decommissioning staff, and providing appropriate facilities for the safe storage of cycles;</p> <p>Liaising with decommissioning personnel for potential to implement staff minibuses and car sharing options;</p> <p>Removing and recycling all solar PV panels, mounting poles, PCS, and transformers where practicable, in accordance with good practice and market conditions at the time;</p> <p>Increasing recyclability by segregating decommissioning waste to be re-used and recycled where reasonably practicable;</p> <p>Switching off vehicles and plant when not in use and ensuring decommissioning vehicles conform to current EU emissions standards; and</p> <p>Adopting the CCS to assist in reducing pollution from the decommissioning of the Proposed Development.</p>	<p>None required</p>

Table 3.2. Buried Heritage

Potential Impact	Mitigation Measures	Monitoring Requirements
Potential for impact upon buried heritage assets	<p>It is not expected that the decommissioning process would cause any ground disturbance in excess of the construction phase, and any element associated with the Proposed Development will be removed using methods and extents similar to that of the construction phase. As a result, buried archaeological remains already removed during construction would not experience any further effects as a result of decommissioning.</p> <p>The specific method of decommissioning is uncertain at present as the engineering approaches to decommissioning will evolve over the operational life of the Proposed Development. Any potential harm to buried archaeological assets unknown at the time of writing will be discussed with the relevant stakeholders and assessed prior to the commencement of the decommissioning phase.</p> <p><u>An Archaeological Clerk of Works (ACoW) will be appointed for the Decommissioning Phase who will be reviewing and overseeing all the proposed works on Site.</u></p> <p>The Archaeological Clerk of Works (ACoW) will be notified of any development works during the Maintenance and Decommissioning phases that fall outside areas previously disturbed by Construction-phase groundworks. If such works are expected to affect known archaeological remains, identified during evaluation, or Areas of Archaeological Constraints (AAC), or are expected to have a high magnitude of impact in areas where no remains were identified, they will be assessed and any required evaluation or mitigation will be discussed with the Archaeological Advisory Teams to the LPAs and Historic England.</p>	<p>DEMP – review and monitoring of the proposed groundwork as part of the decommissioning phase.</p> <p><u>Outline Written Scheme of Investigations – cover the allowances and role of the ACoW for the Decommissioning phase.</u></p> <p>An Archaeological Clerk of Works (ACoW) will be appointed for the Decommissioning Phase who will be reviewing and monitoring all works on Site. Requirements will be set out in the Archaeological Mitigation Strategy and compliance with measures regularly recorded via an appropriate method to be determined in the DEMP.</p>

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Table 3.3. Cultural Heritage

Potential Impact	Mitigation Measures	Monitoring Requirements
Temporary impacts on the setting of heritage assets during decommissioning associated with increased visual and noise intrusion.	<p>Control of noise, lighting and dust in order to mitigate the temporary intrusiveness of decommissioning activity in the settings of heritage assets. These measures are set out in <del>Table 3.8</del><b>Table 3.8</b> (Noise and Vibration), <del>Table 3.16</del><b>Table 3.16</b> (Air Quality) and <b>Section 2.7</b> (Control of light).</p> <p>The Site will be restored, and visual impact is as detailed in the detailed Landscape and Ecology Management Plan, which is secured via the <b>Outline Landscape and Ecology Management Plan [EN010159/APP/7.7]</b>, and the approach at decommissioning will be covered in the DEMP.</p> <p>Decommissioning traffic routes and modes of transport will seek to minimise impacts to numerous receptors, including heritage assets, by bypassing historic villages, where possible. These will be further defined in the DEMP.</p>	To be determined as part of the DEMP.

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Table 3.4. Ecology

Potential Impact	Mitigation Measures	Monitoring Requirements
Potential for future baseline to differ to that assumed in the EIA	Pre-decommissioning surveys will be carried out to verify the adequacy of mitigation and protected species licensing, as required at the time of decommissioning	To be determined as part of the DEMP.
There is potential to introduce/spread invasive non-native species (INNS) within and beyond the Order Limits during decommissioning of the Proposed Development through vehicles/machinery and people	<p>Terrestrial and aquatic INNS have been identified within and in the vicinity of the Site through site survey and desk-based study. See <b>ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6]</b>, and <b>ES Volume 3, Appendix 6.2: Ecology Desk Study [EN010159/APP/6.21]</b> and <b>ES Volume 3, Appendix 6.3: Extended Habitat Survey [EN010159/APP/6.21]</b>.</p> <p>Pre-decommissioning surveys will be undertaken to provide an update on the presence and location of any INNS that could be impacted by the Proposed</p>	Ongoing monitoring of habitats and species will be undertaken throughout decommissioning, over seen by an appointed EcoCoW of suitable qualifications and experience, or in charge of a team of appropriately qualified ecologists.

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Development, the findings of which will inform the implementation of measures to prevent their spread.</p> <p>A Biosecurity Plan will be produced prior to decommissioning which will set out procedures to ensure that no INNS are brought onto the Site, exported out of the Site or spread within it (e.g. Wildlife and Countryside Act (WCA) 1981 (as amended) Schedule 9 species). In the event that any future infestations of INNS are identified prior to and or during the decommissioning process, exclusion zones will be established around them, and a suitably qualified ecologist contacted for advice as required. Site / species specific method statements (or similar will be prepared as required.</p>	<p>The EcoCoW will have the appropriate authority to review Risk Assessment Method Statement (RAMS), oversee works and recommend action as appropriate, including temporarily stopping works where non-compliant working is observed, for example to safeguard protected species and their habitats, or where any other breaches of environmental legislation are likely to occur.</p>
Potential for obtrusive light spill to impact on ecology.	<p>Controls on lighting/illumination to minimise visual intrusion and potential adverse effects on sensitive ecological features (e.g. water bodies, watercourses, woodlands, hedgerows and individual trees) will be implemented as far as reasonably practicable (detailed in <b>Section 2.7</b>).</p>	<p>Daily environmental checks by nominated personnel will include lighting.</p>
Potential for spillages to enter watercourses and impact ecology and dust deposition on sensitive ecological features.	<p><b>Table 3.5</b> specifies mitigation requirements in relation to the prevention of spillages and water pollution.</p> <p><b>Table 3.16</b> specifies mitigation requirements in relation to air quality (including dust emissions).</p> <p><b>Table 3.8</b> specifies mitigation requirements in relation to noise and vibration.</p> <p>Prior to decommissioning, the Contractor will develop an Emergency Response Plan (ERP).</p> <p>Unless works require the removal of culverts, no works will be undertaken within at least 10m of watercourses, which is considered sufficient to mitigate for potential hazards such as chemical and soils spills to avoid potential direct impacts to watercourses and any protected/notable species that use them. The DEMP will also specify requirements for the safe storage of chemicals/other hazardous materials (e.g. fuel) reaching watercourses during flood events during construction.</p>	<p>Daily environmental checks by nominated personnel.</p>

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Potential Impact	Mitigation Measures	Monitoring Requirements
Removal of vegetation present within the Site.	<p>Where required vegetation clearance will be undertaken in advance of decommissioning and at an appropriate time of year to avoid the nesting bird period and incidental injuring or killing of reptiles and amphibians. Therefore, removal will avoid the nesting bird period (i.e., March to August inclusive) for vegetation clearance and, in areas suitable for reptiles, would be undertaken at an appropriate time of year, concordant with requirements for other species (such as nesting birds and brown hare). Where vegetation clearance cannot avoid the inactive season and is proposed within the nesting bird period, these will be checked for the presence of any nests by a suitably experienced ornithologist, prior to vegetation removal, and if active nests are found, then appropriate buffer zones would be put in place and the area monitored until the young birds have fledged. Vegetation with the potential to support reptiles will be cut in a phased approach, firstly cutting to 30cm (centimetres), then, following a period of no less than 24 hours, to 15cm and then to ground level, after another 24 hours. Any habitat features within such areas which may conceal sheltering reptiles and amphibians (e.g., log piles, rubble mound bunds, any other debris) will not be dismantled during their inactive season (i.e., November to February inclusive).</p> <p>Checks for nesting birds listed under Schedule 1 of the WCA 1981 (as amended), especially barn owl, quails and hobby's, will be undertaken prior to decommissioning (including the appropriate season prior to for monitoring purposes, and immediately prior to for vegetation clearance) and will be carried out where the Proposed Development intersects or passes close to suitable breeding habitats or known breeding locations for these species. If nesting Schedule 1 birds are found, a suitably qualified ornithologist will be consulted to advise whether a temporary no disturbance buffer around the nest is required to avoid disturbance to Schedule 1 breeding species, the size of which will be determined by the species, stage of nesting and decommissioning activity proposed.</p>	Pre-start surveys and daily environmental checks by nominated personnel.
Clearance or damage of habitat to facilitate decommissioning – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	The decommissioning of the grid connection cable will not directly impact the River Trent, Special Area of Conservation (SAC) / Site of Special Scientific Interest (SSSI), and their associated coastal and deciduous habitats. The cables would either be left in situ or removed by opening the ground (away from the ecological sites and habitats) and pulling the cable through to the extraction point.	Pre-start surveys and daily environmental checks by nominated personnel.

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Vehicular access during decommissioning along the existing track along both sides of the River Trent would be managed. Along with ensuring the health and safety of road users this would also ensure that there would be no requirement for road widening / highway improvements at the junction with the A57 or for vehicles to progress along the track. The traffic management would also ensure that trespass of vehicles onto the verge was avoided (as detailed in the <b>Outline Construction Traffic Management Plan [EN010159/APP/7.9]</b> and translated into the DEMP). The access would require the construction of a temporary bell mouth in the verge habitat to the north of the existing access track when entering the field, which would be fully reinstated at end of decommissioning. No loss of qualifying habitat within the SAC or SSSI boundary will occur due to the use of the track for site access.</p> <p>Dust would be managed in accordance with the air quality section found in <b>ES Volume 2.0, Chapter: Air Quality [EN010159/APP/6.13]</b></p> <p>Solar PV and BESS Site Perimeter Fencing will remain in place throughout the duration of the decommissioning works within each solar PV and BESS area, being the last element of infrastructure to be removed. This will prevent decommissioning activity in proximity to peripheral habitats and retained habitats within the Site.</p> <p>Preparation of mitigation strategies for protected species and, where required, application for species licences from Natural England for translocation of animals away from decommissioning areas sufficiently in advance of the works to meet with the optimum time for mitigation and to minimise any changes to the construction programme.</p> <p>Reasonable avoidance measures, including appropriate buffers (up to 30m) around any identified active badger (<i>Meles meles</i>) setts or retained trees with bat roost suitability (buffer of 15m) throughout the Site will be implemented. Implementation of measures to avoid animals being injured or killed within working areas, through</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>excluding them from such areas and preventing them falling into and becoming trapped in excavations.</p> <p>Specific tree protection measures will be implemented, including fencing and construction exclusion zones. Tree root protection fencing will be erected around retained trees, in line with 'British Standard BS 5837: Trees in relation to design, demolition and construction – Recommendations' and these undeveloped buffers will be of at least 15m for individual veteran/ancient trees, 10m from woodlands, individual trees and hedgerows with trees and at least 5m from hedgerows without trees.</p> <p>A suitably experienced EcoCoW (or similar) will be employed/contracted to advise on relevant environmental commitments, the findings of the updated surveys, protected species licencing requirements and with reference to the relevant project programmes.</p> <p>Relevant site staff would receive toolbox talks on the ecological risks present, legal requirements and working arrangements necessary to comply with legislation. Toolbox talks would be repeated as necessary over the duration of the relevant works.</p> <p>Checks for nesting birds listed under Schedule 1 of the WCA 1981 (as amended), especially barn owl, quail and hobby will be undertaken prior to works (including the appropriate season prior to for vegetation clearance) and will be carried out where the Proposed Development intersects or passes close to suitable breeding habitats or known breeding locations for these species. If nesting Schedule 1 birds are found, a suitably qualified ornithologist will be consulted to advise whether a temporary no disturbance buffer around the nest is required to avoid disturbance to Schedule 1 breeding species, the size of which will be determined by the species, stage of nesting and works activity proposed.</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
Effects on protected and, or notable species	<p>Precautionary working method statements would be produced to specify working requirements and other impact avoidance measures and would be controlled and implemented through the DEMP;</p> <p>Where reasonably practicable, vegetation clearance works would be undertaken outside the bird breeding season (as above);</p> <p>Precautionary methods of working will be adopted for vegetation clearance within areas where reptiles, notable mammals (e.g. hedgehog, polecat, brown hare, harvest mouse) or amphibians could be present, to minimise the risk of injury/killing. Vegetation with the potential to support reptiles will be cut in a phased approach, firstly cutting to 30cm, then, following a period of no less than 24 hours, to 15cm and then to ground level, after another 24 hours. Any habitat features within such areas which may conceal sheltering reptiles and amphibians (e.g., log piles, rubble mound bunds, any other debris) will not be dismantled during their inactive season (i.e., November to February inclusive).</p> <p>Reasonable avoidance measures would be used during clearance of any habitat suitable for reptiles, to minimise the risk of injury/killing including phased clearance of vegetation to gradually reduce suitability for reptiles, thereby encouraging animals to move away from affected areas into adjacent suitable habitat;</p> <p>Any necessary protected species licences will be applied for and obtained prior to undertaking any works that might result in offences under the relevant legislation.</p> <p>Cleared ground would be maintained in a disturbed state in the run-up to construction commencing to minimise the risk of ground nesting birds attempting to nest on cleared ground; and</p> <p>Precautionary measures would be implemented to prevent trapping wildlife in excavations (such as pits created for cable pulling) in order to ensure compliance with animal welfare legislation. All excavations deeper than 1m would be covered or fenced overnight,</p>	Pre-start surveys and daily environmental checks by nominated personnel.

Potential Impact	Mitigation Measures	Monitoring Requirements
	or where this is not practicable, a means of escape would be fitted (e.g. battened soil slope or scaffold plank) to provide an escape route should any animals stray into the works site and fall into an excavation. No excavations will remain open overnight and if excavations are required to be left open, ramps will be provided to allow animals a means of escape.	

Table 3.5. Hydrology

Potential Impact	Mitigation Measures	Monitoring Requirements
<p>Pollution of surface water or groundwater <u>(which inherently includes impacts on surface water and groundwater abstractions)</u> -due to deposition or spillage of soils, sediments, oils, fuels, or other decommissioning chemicals, or through uncontrolled site run-off (including dewatering of excavations) or foul wastewater.</p> <p>Temporary changes in flood risk from changes in surface water runoff and exacerbation of localised flooding, due to deposition of silt, sediment in drains, ditches.</p> <p>Temporary changes in flood risk due to the removal of solar PV panels, BESS, site compound and storage facilities, which alter the surface water runoff from the Proposed Development.</p>	<p>The decommissioning of the Proposed Development will be undertaken in accordance with best practice as detailed below. Where required secondary permissions will be sought for temporary and potentially some permanent works affecting watercourses or groundwater (e.g. flood risk activity permits, water activity permits, land drainage consents, and abstraction licences).</p> <p>Any open green sustainable urban drainage systems (SuDS) features (such as swales and detention basins) constructed as part of the Proposed Development will remain following decommissioning</p> <p><b>Good Practice Guidance</b></p> <p>Relevant Good Practice Guidelines (Guidance for Pollution Prevention (GPP)) at the time will be adhered to.</p> <p><b>Management of Decommissioning Site Runoff</b></p> <p>All reasonably practicable measures will be taken to prevent the deposition of fine sediment or other material in, and the pollution by sediment of, any existing watercourse arising from decommissioning activities. Measures may include use and maintenance of temporary lagoons, tanks, bunds and fabric silt</p>	<p>Temporary drainage will be monitored throughout decommissioning. Specific details will be confirmed in DEMP.</p> <p>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. Full monitoring details would be outlined in the DEMP.</p>

Potential Impact	Mitigation Measures	Monitoring Requirements
Potential impacts on local water supplies.	<p>fences etc. or silt screens as well as consideration of the type of plant used.</p> <p>A temporary drainage system will be developed to prevent runoff contaminated with fine particulates from entering surface water drains without treatment. This will include identifying all land drains and water features in the Site and ensuring that they are adequately protected using drain covers, sandbags, earth bunds, geotextile silt fences, straw bales etc., or proprietary treatment (e.g. lamella clarifiers).</p> <p>Where practical, earthworks will be undertaken during the drier months of the year and earth moving works will avoid periods of very wet weather, to minimise the risk of generating runoff contaminated with fine particulates. However, it is likely that some working during wet weather periods will be unavoidable, in which case other mitigation measures (see below) will be implemented to control fine sediment laden runoff. Water may also be required to dampen earthworks during dry weather to reduce dust impacts, and any runoff generated will need to be appropriately managed by the Contractor in accordance with the agreed pollution prevention principles.</p> <p>To protect watercourses from fine sediment runoff, topsoil/subsoil will be stored a minimum of 20m from watercourses on flat lying land. Where this is not practicable, and it is to be stockpiled for longer than a two-week period, the material will either be covered with geotextile mats, seeded to promote vegetation growth, or runoff prevented from draining to a watercourse without prior treatment.</p> <p>Appropriately sized runoff storage areas for the settlement of excessive fine particulates in runoff will be provided.</p> <p>Decommissioning site runoff will either be treated on Site and discharged under a Water Discharge Activity Permit from the Environment Agency (EA) to Controlled Waters (potentially also including infiltration to ground) or to the nearest public sewer with sufficient capacity for treatment following discussions with Anglian</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Water, or else removed from site for disposal at an appropriate and licensed waste facility.</p> <p>Equipment and plant are to be washed out and cleaned in designated areas within the temporary decommissioning Compounds or with the Operations &amp; Maintenance main site, where runoff can be isolated for treatment before disposal as outlined above;</p> <p>Mud deposits will be controlled at entry and exit points to the Site using wheel washing facilities and/or road sweepers operating during earthworks activities or other times as required.</p> <p>Debris and other material will be prevented from entering surface water drainage, through maintenance of a clean and tidy site, provision of clearly labelled waste receptacles, grid covers and the presence of site security fencing.</p> <p>Should the use of herbicide or other spray chemical be required, a method statement, operating procedure or similar will be prepared prior to the work commencing. This will include measures to protect ground and surface water, including that such work would not be undertaken during or before rainfall and high winds. Such work will only be carried out by competent personnel using products approved for UK use with adherence to manufacturer's instructions.</p> <p>The Water Management Plan (WMP) (which will be produced post consent with the DEMP) will include details of pre, during and post-decommissioning water quality monitoring. This will be based on a combination of visual observations and reviews of the EA's automatic water quality monitoring network.</p> <p><b>Management of Spillage Risk</b></p> <p>Fuel will be stored and used in accordance with the relevant regulations.</p> <p><u>All refuelling and storage areas for fuel, oil and chemicals at least 10m away from the top of the bank of watercourses.</u></p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p><u>All storage areas will be covered where possible to prevent the accumulation of rainwater. Where coverage is not adequate in heavy rainfall, containment measures such as bunds may include a valve to release accumulated rainwater.</u></p> <p>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, which includes 10% more capacity than is needed).</p> <p><u>Where these containment measures are utilised, an oil separator (interceptor), or other device to remove oil from water, may need to be installed. This will be detailed in the CEMP if required;</u></p> <p>Any plant, machinery or vehicles will be inspected before every use and maintained to ensure they are in good working order and clean for use in a sensitive environment. This maintenance is to take place off site if practicable or, if on site, only at designated areas within the Proposed Development site compound. Only decommissioning equipment and vehicles free of all oil/fuel leaks will be permitted on the Site. Drip trays will be placed below static mechanical plant.</p> <p>All washing down of vehicles and equipment will take place in designated areas and wash water will be prevented from passing untreated into watercourses.</p> <p>All refuelling, oiling and greasing of plant will take place above drip trays or plant nappies, 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.</p> <p>As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses.</p> <p>All fixed plant used on the Site will be self-bunded.</p>	



Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Mobile plant is to be in good working order, kept clean, fitted with plant 'nappies' at all times and are to carry spill kits.</p> <p>The WMP (which will be produced post consent) will include details for pollution prevention and will be prepared and included alongside the final DEMP. Spill kits and oil absorbent material will be carried by mobile plant and located at high-risk locations across the Site and regularly monitored and topped up. All decommissioning workers will receive spill response training and toolbox talks.</p> <p>The Site will be secure to prevent any vandalism that could lead to a pollution incident.</p> <p>Decommissioning waste/debris are to be prevented from entering any surface water drainage or water body.</p> <p>Surface water drains on public roads trafficked by plant or within the site 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 sandbags) or the road regularly cleaned by road sweeper.</p> <p>In addition, any site welfare facilities will be appropriately managed, and all foul waste disposed of by an appropriate contractor to a suitably licensed facility.</p> <p><b>Management of Flood Risk</b></p> <p>Decommissioning works undertaken adjacent to, beneath and within watercourses will comply with relevant guidance, including EA and other guidance documents.</p> <p>Measures aimed at preventing an increase in flood risk during the decommissioning works include:</p> <p>Topsoil and other decommissioning materials would be stored outside of the 0.5% Annual Exceedance Probability (AEP) extent for areas at tidal flood risk and outside of the 1% AEP +CC extent for areas at fluvial flood risk. This is subject to changes in flood risk policy prior to decommissioning commencing. If areas located within Flood</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Zone 3 are to be utilised for the storage of decommissioning materials, this would be done in accordance with the applicable flood risk activity regulations, if required;</p> <p>Connectivity would be maintained between the floodplain and the adjacent watercourses, with no changes in ground levels within the floodplain as far as practicable;</p> <p>During the decommissioning phase, the Contractor would monitor the weather forecasts daily and review the weekly and monthly weather forecasts each week, and plan works accordingly. For example, works in the channel of any watercourses would be avoided or halted were there to be a significant risk of high flows or flooding; and</p> <p>The UK Government's Flood Warning Service issues flood warnings and alerts to registered users, the user can specify which areas they require warnings and alerts for. Key contractor personnel (to be identified within the DEMP) would be registered with the service and would be responsible for ensuring this information was disseminated and the ERP (see below) was followed.</p> <p>The Contractor would be required to produce an ERP as part of the DEMP (secured through the oDEMP) which would provide detail of the response to an impending flood event and include:</p> <ul style="list-style-type: none"> <li>A 24-hour availability and ability to mobilise staff in the event of a flood warning;</li> <li>The removal of all plant, machinery and material capable of being mobilised in a flood for the duration of any holiday close down period where there is a forecast risk that the Site may be flooded;</li> <li>Details of the evacuation and site closedown procedures;</li> <li>Arrangements for removing any potentially hazardous material and implement more stringent protection measures;</li> </ul>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>If water is encountered during below ground decommissioning, suitable de-watering methods would be used. Any groundwater dewatering required in excess of the exemption thresholds would be undertaken in line with the requirements of the EA; and</p> <p>Safe egress and exits are to be maintained at all times when working in excavations. When working in excavations a banksman is to be present at all times.</p>	

Table 3.6. Landscape and Visual Amenity

Potential Impact	Mitigation Measures	Monitoring Requirements
Visual Impacts on receptors	The Site will be restored, and visual impact is as detailed in the detailed Landscape and Ecology Management Plan, which is secured via the <b>Outline Landscape and Ecology Management Plan [EN010159/APP/7.7]</b> , and the approach at decommissioning will be covered in the DEMP.	Monitoring of screening is detailed in the <b>Outline Landscape and Ecology Management Plan [EN010159/APP/7.7]</b> .
Visual Impacts on receptors	The Proposed Development's lighting strategy is discussed in detail in <b>ES Volume 1.0, Chapter 5: Description of the Proposed Development, [EN010159/APP/6.5]</b> . The lighting strategy at decommissioning is further described in <b>Section 2.7</b> of this oDEMP. The proposed lighting has been designed to avoid and minimise the potential for adverse landscape and visual effects. The following mitigation has been embedded in the <b>Design Approach Document [EN010159/APP/5.8]</b> .	Monitoring will be provided in the DEMP.

Table 3.7. Arboriculture Impact Assessment

Potential Impact	Mitigation Measures	Monitoring Requirements
Tree Loss, or Direct or indirect damage to retained trees.	<p>An assessment of arboricultural impacts, tree protection measures and the methodology for sensitive works near retained trees will be developed as part of an Arboricultural Method Statement (AMS) and final Tree Protection Plan (TPP) as part of the DEMP.</p> <p>Trees will be protected with a fenced exclusion zone (installed in advance of commencement of works in that location) where feasible. Where access over the Root Protection Area (RPA) of a retained tree is unavoidable this will be achieved using existing hard surfacing or ground protection (which will be sufficient to protect roots and the structure of the soil in which they grow).</p> <p>Where works are unavoidable within the RPA of retained trees, the final working methodology will be detailed in the AMS as part of the DEMP. General guidance measures are set out in the <b>ES Volume 3, Appendix 11.6: Arboricultural Report [EN010159/APP/6.21]</b>.</p> <p>Where trees require pruning, the extent of pruning will be the minimum feasible to achieve the objective and works will be carried out in accordance with the relevant legislation and guidelines at the time. The final extent of any pruning will be determined by the AMS submitted as part of the DEMP.</p> <p>The storage of materials and any washing, mixing or refuelling must take place in agreed allocated areas at least 5m from the edge of the RPA of retained trees. Any slope effect must be taken into account and where there is a potential for run off, heavy duty polythene sheeting and sandbags must be in place as bunding to prevent toxic materials reaching RPAs.</p>	<p>Monitoring and supervision will be detailed in the AMS as part of the DEMP.</p> <p>This is likely to include regular site visits by an arboriculturist to check on the implementation of tree protection measures (e.g. fencing and ground protection) as well as an arboricultural watching brief for any pruning and careful works within RPAs.</p>

Table 3.8 Noise and Vibration

Potential Impact	Mitigation Measures	Monitoring Requirements
Volumes of noise that may cause public disturbance during decommissioning operations	<p>Best Practicable Means (BPM) that would be implemented during decommissioning works are presented below:</p> <ul style="list-style-type: none"> <li>Ensuring that all appropriate processes, procedures and measures are in place to minimise noise before works begin and throughout the decommissioning programme;</li> <li>All contractors to be made familiar with current legislation and the guidance which should form a prerequisite of their appointment;</li> <li>Ensuring that, where reasonably practicable, noise and vibration are controlled at source (e.g., the selection of inherently quiet plant and low vibration equipment), review of the construction programme and methodology to consider quieter methods, consideration of the location of equipment on-site and control of working hours;</li> <li>Use of modern plant, complying with applicable UK noise emission requirements;</li> <li>Hydraulic techniques for breaking concrete or rocks to be used in preference to percussive techniques, where reasonably practicable;</li> <li>Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications;</li> <li>All plant and equipment to be properly maintained, silenced where appropriate, operated to prevent excessive noise, and switched off when not in use;</li> <li>Loading and unloading of vehicles, dismantling of site equipment or moving equipment or materials around the Site to be conducted in such a manner as to minimise noise generation, as far as reasonably practicable;</li> </ul>	<p>The DEMP(s) will provide details of monitoring. This will be short term monitoring at the start of new, noisy activities to verify the predictions in the ES and compliance with the predicted significance of effects.</p>

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>All vehicles used on-site shall incorporate broadband reversing warning devices as opposed to the typical tonal reversing alarms to minimise noise disturbance where reasonably practicable;</p> <p>Appropriate routing of construction traffic on public roads and along access tracks to avoid sensitive areas where practicable (to be defined in the DEMP);</p> <p>Provision of information to the relevant local authority and local residents to advise of potential noisy works that are due to take place;</p> <p>Monitoring of noise complaints and reporting to the Applicant for immediate investigation and action. A display board will be installed on-site, and a website will be set up. These will include contact details for the Site Manager or alternative public interface with whom nuisance or complaints can be lodged. A logbook of complaints will be prepared and managed by the Site Manager;</p> <p>Unnecessary revving of engines will be avoided, and equipment will be switched off when not in use;</p> <p>Drop heights of materials will be minimised;</p> <p>Plant and vehicles will be sequentially started up rather than all together;</p> <p>Plant will always be used in accordance with manufacturers' instructions. Care will be taken to site equipment away from noise-sensitive areas. Where practicable, loading and unloading will also be carried out away from such areas; and</p> <p>Works undertaken in grid connection corridor and the interconnecting cable corridor would be undertaken at least 15m from a sensitive receptor where practicable.</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
Impacts to nearby residents	<p>Noise generating activities near residential properties, such as use of power tools or pulling of solar PV frame supports, would be limited to the hours between 08:00 and 18:00 from Monday to Friday and between 08:00 and 13:00 on Saturday.</p> <p>Core working hours onsite will be 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturday but will be shortened if working would necessitate artificial lighting and therefore the working day will be shorter in the winter months. There will be no work on a Sunday or Bank Holiday unless crucial to decommissioning (or in an emergency).</p> <p>Where high noise generating works are required to be undertaken outside of core daytime working hours, consents will be sought from the relevant local authority where appropriate at the time. This would set out the specific method of working, calculations of noise levels at nearby receptors, the actual working hours required, noise monitoring locations, details of communication measures and the mitigation measures implemented to minimise noise and vibration impacts.</p>	<p>Daily environmental checks by nominated personnel.</p> <p>Specific monitoring requirements as agreed with the council.</p>
Decommissioning traffic, plant and machinery noise at nearby Noise Sensitive Receptors (NSR).	<p>Appropriate routing of traffic on public roads and along access tracks to avoid sensitive areas where practicable (see <b>ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5]</b> and the <b>Outline Construction Traffic Management Plan [EN010159/APP/7.9]</b> which also contains figures detailing traffic routing);</p> <p>Consideration has been given to traffic routing, timing and access points to the Proposed Development to minimise noise impacts at existing receptors as detailed in the transport and access chapter found in <b>ES Volume 2.0, Chapter 12: Transport and Access [EN010159/APP/6.12]</b>.</p>	<p>Further details are to be confirmed in the DEMP.</p>



Table 3.9. Socio-Economics and Land Use

Potential Impact	Mitigation Measures	Monitoring Requirements
Disruption to users of Public Rights of Way (PRoW)	<p>Removal of the PV and BESS Sites perimeter fencing is the last stage of demobilisation in each area, decommissioning activities within the Site can therefore operate without impacts to PRoW.</p> <p>Elsewhere within the Site, access to all existing PRoW will be retained during the decommissioning phase, with no PRoW closures proposed. There will be a limited number of temporary PRoW diversions around the Proposed Development as set out in the <b>Outline Public Rights of Way Management Plan [EN010159/APP/7.14]</b> (oPRoWMP) submitted as part of this DCO Application.</p> <p>Additionally, several PRoW will require management to ensure user safety and accessibility. The management measures and the PRoW to which they apply are fully described in the oPRoWMP. Management measures include, but are not limited to:</p> <ul style="list-style-type: none"><li>Maximising visibility between decommissioning vehicles and other users (i.e., pedestrians, cyclists, equestrian);</li><li>Implementing traffic management (e.g., advanced signage to advise other users of the works); and</li><li>Use of manned controls where the Proposed Development crosses PRoW (i.e., marshals or banksmen), with a default priority that decommissioning traffic will give-way to other users.</li></ul>	Monitoring any temporary diversions of PRoWs during the decommissioning. To be confirmed in the DEMP.
Disruption to local residents, businesses and community facilities	<p>Measures to mitigate the effects of visual impacts during decommissioning are outlined in <b>Table 3.6Table 3.6.</b></p> <p>Measures to mitigate the effects of decommissioning noise are outlined in <b>Table 3.8Table 3.8.</b></p> <p>Measures to mitigate the effects of decommissioning traffic are outlined in <b>Table 3.10Table 3.10.</b></p> <p>Measures to mitigate the effects on air quality are outlined in <b>Table 3.16Table 3.16.</b></p>	<p>To be included in the DEMP or as outlined in the aforementioned tables.</p>

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Table 3.10. Transport and Access

Potential Impact	Mitigation Measures	Monitoring Requirements
<p>Increased traffic flows, including HGVs on the roads leading to the Site.</p> <p>Severance and intimidation associated with increased decommissioning traffic and abnormal loads.</p>	<p>The following embedded design mitigation measures are proposed:</p> <p>Suitable access points will be identified to enable movement of vehicles into sites where appropriate;</p> <p>Minimum car parking levels will be met across the Site to meet the demand during the decommissioning phase;</p> <p>Swept path analysis for abnormal indivisible loads (AILs), HGVs, and tractor/trailers has been conducted to ensure there is knowledge of where routing is appropriate. Where new routes are proposed, further analysis will be conducted;</p> <p>Pre and post decommissioning road condition surveys will be undertaken at identified locations in coordination with the Local Highway Authority;</p> <p>AILs will be routed in accordance with the findings of the routing review for large vehicles as set out in the <b>Outline Construction Traffic Management Plan [EN010159/APP/7.9]</b>;</p> <p>Implementing local off-site highway improvements (e.g., verge clearance, hedge cutting and/or carriageway widening) where required to support HGV movements;</p> <p>Utilising internal routes between solar PV and BESS areas to avoid using the existing road network where practicable;</p> <p>Managing the areas where traffic will use the road network, by providing adequate visibility splays between decommissioning vehicles and other road users, implementing traffic management (e.g., advanced signage to advise other users of the works, as well as manned controls at each crossing point (marshals/ banksmen)), with a default priority that decommissioning traffic will give-way to other users. This will also apply where decommissioning traffic and PRow may intersect;</p>	<p>The appointed contractor will undertake such monitoring as is necessary, with examples provided in the mitigation / enhancements column.</p> <p>Further details to be confirmed in the DEMP.</p> <p>Other responsibilities are to be confirmed in the DEMP.</p>

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Positioning of suitably qualified banksmen at access points to allow all vehicle arrivals and departures to be safely controlled during the decommissioning period;</p> <p>Ensure temporary traffic signals are implemented where necessary across the road network to reflect demand;</p> <p>Restricting HGV movements to certain routes along 'higher' order roads, such as A and B classified roads or the Strategic Road Network (SRN);</p> <p>To minimise the number of HGV movements between 07:00 and 09:00, as well as 16:00 and 20:00, to avoid increasing traffic levels on the surrounding highway network during the traditional weekday peak hours;</p> <p>Implementing a Delivery Management System to control the bookings of HGVs from the start of the decommissioning period. This will be used to regulate the arrival times of HGVs via timed slots, as well as to monitor compliance of HGV routing. In addition, adequate space will be made available within compounds to ensure no queuing back onto the surrounding road network occurs;</p> <p>Implementing a monitoring system to record the route of all HGVs travelling to and from the Site, to record any non-compliance with the agreed routing strategy/delivery hours and to communicate any issues to the relevant suppliers to ensure the correct routes and times are followed;</p> <p>Decommissioning staff will be directed to take the most direct route to the Site using 'higher' order roads, such as A and B classified roads or the SRN;</p> <p>Encouraging local staff to car share to reduce single occupancy car trips. This will promote the benefits of car sharing, such as reduced fuel costs. A car share system will be implemented to match potential sharers and to help staff identify any colleagues who could potentially be collected along their route to/from the Site;</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Implementing a shuttlebus service to transfer non-local staff to/from local worker accommodation (assumed average occupancy of 16 workers per service), to reduce vehicle trips on the surrounding highway network. Minibuses will also be used to transport staff around the Site, by making use of the internal travel routes wherever practicable;</p> <p>Providing limited (but sufficient) on-site car and cycle parking to accommodate the expected parking demand of staff associated with the Proposed Development. Staff movements will be managed through the implementation of limited car parking, car sharing, staff routing, specified staff arrival and departure times, parking strategy and the minibus services;</p> <p>A specialised haulage service will be employed to allow AILs to transport components with the necessary escort, permits and traffic management, with the contractor consulting the relevant highways authorities to ensure the correct permits are obtained. The police will also be given advanced notification.</p> <p>PRoWs within the solar PV site will have maintained access throughout decommissioning with minor diversions. The interconnecting cables and grid connection cables would only be impacted during short-term trenching and restoration operations and will be managed with traffic management measures where necessary. Routes may be temporarily slightly altered, e.g., moving from one side of a road to the other. Under a worst-case scenario, if any PRoWs require diversion, these will be short-term in duration;</p> <p>To mitigate impacts for cyclists and pedestrians a communications strategy including regular meetings with contractors to review and address any issues will be implemented; and</p> <p>Additional mitigation measures would only be required where significant effects are identified following the application of embedded mitigation measures. However, as all mitigation is embedded within the Proposed Development design in relation to transport and</p>	



Potential Impact	Mitigation Measures	Monitoring Requirements
	access, it is not considered that further additional mitigation measures will be introduced.	

Table 3.11. Human Health

Potential Impact	Mitigation Measures	Monitoring Requirements
Amenity impacts associated with PRoW, traffic, noise, ground contamination, air quality and major accidents or disasters.	Mitigation measures associated with amenity impacts are set out in: <u>Table 3.8</u> <del>Table 3.8</del> Noise and Vibration, <u>Table 3.9</u> <del>Table 3.9</del> Socio-Economics and Land-Use, <u>Table 3.10</u> <del>Table 3.40</del> Transport and Access, <u>Table 3.15</u> <del>Table 3.45</del> Major Accidents and Disasters, <u>Table 3.16</u> <del>Table 3.46</del> Air Quality; and <u>Table 3.17</u> <del>Table 3.47</del> Ground Conditions.	

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Table 3.12. Soils and Agricultural Land

Potential Impact	Mitigation Measures	Monitoring Requirements
The Proposed Development has the potential to impact agricultural land during Decommissioning.  The Proposed Development has the potential to impact soil resources in terms of disturbance and damage.	Prior to start of decommissioning, a Soil Management Plan (SMP) following the guidance at the time will be prepared (secured through DCO Requirement). This will be based upon the <b>Outline Soil Management Plan [EN010159/APP/7.10]</b> and the SMP prepared for the construction phase.  Damage to the structure, function and resilience of soil resources (and consequent impacts to its ability to support agriculture) will be mitigated by the use of industry	The appointed contractor will undertake such monitoring as is necessary, such as monitoring of soil stockpiles for the presence of undesirable weed species.  Further details to be confirmed in the DEMP.

Potential Impact	Mitigation Measures	Monitoring Requirements
<p>Improvements in soil quality may also arise.</p> <p>The Proposed Development has the potential to result in a loss of soil resources, including related biosecurity effects.</p>	<p>standard good practice measures for the stripping, handling and storage of soil materials, in line with the SMP. The following main rules should be observed during all soil handling tasks:</p> <ul style="list-style-type: none"> <li>• No trafficking/driving of vehicles/plant or materials storage to occur outside designated areas;</li> <li>• No trafficking/driving of vehicles/plant on reinstated soil (topsoil or subsoil);</li> <li>• Only direct movement of soil from donor to receptor areas (no triple handling and/or ad hoc storage);</li> <li>• Soils will only be moved under the driest practicable conditions, and this must take account of prevailing weather conditions;</li> <li>• Soil handling will be undertaken outside of the (wetter) winter period (October to March inclusive) where practicable and will not be undertaken during or immediately after rainfall events. Where the 'wet-working' of soils cannot be avoided specific methodologies will be followed. These will be set out in the SMP;</li> <li>• No mixing of topsoil with subsoil, or of soil with other materials;</li> <li>• Soil only to be stored in designated soil storage areas, away from watercourse to avoid runoff;</li> <li>• Soils of different types to be stored separately. Clear records of the stockpiles (including annotated plans) will be maintained.</li> <li>• Plant and machinery only work when ground or soil surface conditions enable their maximum operating efficiency;</li> <li>• All plant and machinery must always be maintained in a safe and efficient working condition;</li> <li>• Daily records of operations undertaken, and site and soil conditions will be maintained; and</li> <li>• Low ground pressure (LGP models) or tracked vehicles will be used where practicable.</li> </ul> <p>Soil handling operations will be appropriately supervised to ensure compliance with the SMP to ensure soils are suitable for re-use within the Proposed Development.</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>The appropriate management of soil resources will maintain soil volumes and quality to prevent loss/lowering of Agricultural Land Classification (ALC) grade at decommissioning and thus potential loss of Best and Most Versatile (BMV) status.</p> <p>Topsoil and subsoil from excavation/ working areas will be stripped and stored separately within designated storage areas. Soils of different types will be stored separately. Clear records of the stockpiles (including annotated plans) will be maintained. Soils will be replaced in sequence to maintain/restore the soil profile.</p> <p>Access roads and foundations / hardstanding areas within the Site will be restored using the soils which were stripped and stockpiled during construction. Clear records of the stockpiles (including annotated plans) will be maintained, and soils will be reinstated as close as practicable to their point of origin.</p> <p>It is anticipated that some areas of habitat and biodiversity mitigation and enhancement will be left in-situ for species protection. All other land would be fully reinstated as near as practicably possible to its former condition and land use.</p> <p>The loss of soil resource is considered as the main cause of disease and pathogen transfer, due to the transfer of soil (and incorporated seed/spore bank) from infected to uninfected areas. A SMP to be prepared prior to decommissioning will set out appropriate measures to minimise soil loss and hence biosecurity risk. This will also be covered in the Biosecurity Plan delivered prior to decommissioning. This will include measures such as appropriate cleaning and/or disinfection of machinery and equipment in areas considered to be at high risk before moving into uninfected areas.</p> <p>UK Government's website (relevant at the time of writing) advertising current occurrences and imposed restrictions with regards to animal and plant diseases will be checked throughout decommissioning. The Contractor will also subscribe to the Animal Disease Alert Subscription Service. All restrictions will be adhered to and will include additional biosecurity measures being implemented, where required, such as restricted movements within prevention zones and additional measures around the disinfection of plant and equipment (including boots and manual tools).</p> <p>Soil stockpiles anticipated to be in place for longer than six months will be seeded with appropriate seed mix. Along with protecting the soil against erosion and nutrient loss, this will also help prevent colonisation of the stockpile by nuisance weeds ( This would focus on the removal and prevention of spreading of Himalayan balsam and Japanese knotweed which landowners have reported as being present within areas of the solar PV and BESS site) that could spread seed onto adjacent land.</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Stockpiles will be monitored for the presence of undesirable weed species and the stockpile vegetation cover will be managed as appropriate.</p> <p>The location of power conversion stations, access tracks, BESS, principal construction compounds, satellite construction compounds and substations will be restored using soil that has been retained on-site in managed bunds; or with new topsoil that will be brought to the Site. All areas will be restored to their original ALC grade.</p>	

Table 3.13. Telecommunications, Television Rection and Utilities

Potential Impact	Mitigation Measures	Monitoring Requirements
Potential to affect existing utility infrastructure above and below ground	<p>The risk of damage to utilities during decommissioning will be minimised through mitigation, which will involve:</p> <ul style="list-style-type: none"> <li>Locating decommissioning activities outside of utilities' protected zones;</li> <li>Consultation and agreement of decommissioning/demobilisation methods will be undertaken prior to works commencing (this would be covered by the protective provisions included in the DCO).</li> </ul>	No monitoring required.

Table 3.14. Waste

Potential Impact	Mitigation Measures	Monitoring Requirements
Disposal of waste. Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately.	During decommissioning, the Proposed Development will aim to prioritise waste prevention, followed by preparing for reuse, recycling and recovery and lastly disposal to landfill as per the waste hierarchy.	A register of all waste loads leaving the Order Limits would be maintained to provide a suitable audit trail for compliance purposes and to facilitate

Potential Impact	Mitigation Measures	Monitoring Requirements
Impacts of waste on the surrounding environment	<p>All management of waste will be in accordance with the relevant regulations and waste will be transported by licensed waste hauliers to waste management sites which hold the necessary regulatory authorisation and/or permits for those wastes consigned to them.</p> <p>The types, quantities and destination of waste generated during the decommissioning phase will be completed prior to decommissioning starting and will set out:</p> <ul style="list-style-type: none"> <li>The waste streams that will be generated;</li> <li>How the waste hierarchy will be applied to these wastes;</li> <li>Good practice measures for managing waste; and</li> <li>Roles and responsibilities for waste management.</li> </ul> <p>To reduce the potential impacts from waste, and to achieve high levels of sustainability in the Proposed Development as a whole, the Contractor will apply the principles of the waste hierarchy and adopt BPM which go beyond statutory compliance. This will include the relevant BPMs set out in construction industry guidance.</p> <p>The following approaches will be implemented, where practicable, to minimise the quantity of waste arising and requiring disposal during decommissioning:</p> <ul style="list-style-type: none"> <li>Segregation of waste at source, where practical, to facilitate a high proportion and high-quality recycling; and</li> <li>Off-site reuse, recycling and recovery of materials and waste where reuse on-site is not practical, e.g. Through use of an off-site waste segregation or treatment facility or for direct reuse or reprocessing off-site.</li> </ul> <p>The Principal Contractor will implement the following waste management measures, where practicable, in order to minimise the likelihood of any localised impacts from pollution or nuisance from waste on the surrounding environment:</p> <ul style="list-style-type: none"> <li>Damping down of surfaces during spells of dry weather and brushing/water spraying of heavily used hard surfaces/access points across the site as required;</li> </ul>	monitoring and reporting of waste types, quantities and management methods.



Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Burning of waste or unwanted materials will not be permitted on-site;</p> <p>All hazardous materials including fuels, chemicals, cleaning agents, solvents and solvent containing products to be properly sealed in containers at the end of each day prior to storage in appropriately protected and bunded storage areas;</p> <p>All workers will be required to use appropriate Personal Protective Equipment (PPE) whilst performing activities on-site;</p> <p>Any waste effluent will be tested and, where necessary, disposed of at a correctly licensed facility by a licensed specialist contractor/s; and</p> <p>Materials requiring removal from the site will be transported using licensed carriers and records will be kept detailing the types and quantities of waste moved, and the destinations of this waste, in accordance with the relevant regulations.</p>	

Table 3.15. Major Accidents and Disasters

Potential Impact	Mitigation Measures	Monitoring Requirements
Major Accidents and disasters could have a direct impact on biodiversity receptors and human health if not appropriately managed.	<p>A Biosecurity Plan will be provided as an appendix, to the DEMP. This will provide measures to prevent the spread of plant or animal diseases and the transfer of injurious weed species and invasive species. Measures are likely to include appropriate cleaning and/or disinfection of machinery and equipment in areas considered to be at high risk.</p> <p>The UK Government's website advertising current occurrences and imposed restrictions with regards to animal and plant diseases other relevant will be checked during decommissioning (noting this is the</p>	No monitoring required.

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>website at the current time and whatever alternative is available at decommissioning will be checked accordingly).</p> <p>All works will be undertaken in accordance with relevant Health and Safety legislation and guidance. Details of fire, police, emergency services and hospitals will be publicised and included in the site induction.</p> <p>The relevant risk assessments for safety during decommissioning will be required and produced by the contractor prior to construction, which will be implemented to minimise the risk of accidents and disasters on site.</p>	

Table 3.16. Air Quality

Potential Impact	Mitigation Measures	Monitoring Requirements
<p>Increased nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>) from on-site and off-site decommissioning vehicle/plant emissions.</p> <p>Increased particulates and deposited dust from Site activities, materials transportation, storage and handling, including use of haul roads.</p>	<p>The adoption of good site practice will be implemented through good practice measures to control dust. As decommissioning operations are predicted to be similar to construction, the same good practice measures are predicted to apply.</p> <p><b>Communications</b></p> <ul style="list-style-type: none"> <li>Develop and implement a stakeholder communications plan that includes community engagement before work commences on-site;</li> <li>Display the name and contact details of person(s) accountable for air quality and dust issues on the Site. This may be the environment manager/engineer or the site manager;</li> <li>Display the head or regional office contact information; and</li> <li>Prior to decommissioning develop and implement a Dust Management Plan (DMP), which will include measures to control other emissions, approved by the Local Authority. The level of detail will depend on</li> </ul>	<p>Measures in the DEMP will include the implementation of:</p> <ul style="list-style-type: none"> <li>Inspection procedures at the Order Limits boundary to regularly visually assess any dust and air pollution which may be generated</li> <li>Inspection and maintenance schedules for decommissioning vehicles, plant and machinery; and -</li> <li>Inspection and recording procedures relating to the level of traffic movements,</li> </ul>

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>the risk and will align with good practice at the time. The desirable measures will be included as appropriate for the Site. The DMP will include, as appropriate/necessary, monitoring of dust deposition, dust flux, real-time PM<sub>10</sub> continuous monitoring and/or visual inspections.</p> <p><b>Site Management</b></p> <p>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;</p> <p>Make the complaints log available to the local authority when asked;</p> <p>Record any exceptional incidents that cause dust and/or air emissions, either on-site or offsite, and the action taken to resolve the situation in the logbook;</p> <p>Hold regular liaison meetings with high-risk construction sites within 500m of the Site (if applicable), to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes;</p> <p>Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked;</p> <p>Increase the frequency of site inspections by the person accountable for air quality and dust issues on-site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions; and</p> <p>Agree, where necessary/appropriate, dust deposition, dust flux, or real-time PM<sub>10</sub> continuous monitoring locations with the Local Authority. Where practicable commence baseline monitoring at least three months before work commences on-site or, if it a large site, before work on a phase commences. Further guidance is provided by</p>	<p>use and condition of haul routes.</p>

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Institute of Air Quality Management (IAQM) on monitoring during demolition, earthworks and construction.</p> <p><b>Preparing and Maintaining the Site</b></p> <p>Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is practicable.</p> <p>Erect solid screens or barriers around dusty activities that are at least as high as any stockpiles on-site where stockpiles (if required) are within 100m of receptors.</p> <p>Fully enclose specific operations where there is a high potential for dust production and the Site is active for an extensive period where operations are within 100m of receptors.</p> <p>Avoid site runoff of water or mud.</p> <p>Keep site fencing, barriers and scaffolding clean using wet methods.</p> <p>Remove materials that have a potential to produce dust from the Site as soon as practicable, unless being re-used on-site. If they are being re-used on-site, cover as described below.</p> <p>Cover, seed or fence stockpiles to prevent wind whipping.</p> <p><b>Operating Vehicles / Machinery and Sustainable Travel</b></p> <p>Ensure all vehicles switch off engines when stationary – no idling vehicles.</p> <p>Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.</p> <p>Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>Produce a Delivery Management System (may also be referred to as a Decommissioning Logistics Plan) to manage the sustainable removal of goods and materials.</p> <p>Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).</p> <p><b>Operations</b></p> <p>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.</p> <p>Ensure an adequate water supply on the Site for effective dust/particulate matter suppression/mitigation, using non-potable water where practicable and appropriate.</p> <p>Ensure equipment is readily available on-site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.</p> <p><b>Waste Management</b></p> <p>Burning of waste or unwanted materials will not be permitted on-site.</p> <p><b>Earthworks</b></p> <p>Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.</p> <p>Use Hessian, mulches or tackifiers where it is not practicable to re-vegetate or cover with topsoil, as soon as practicable.</p> <p>Only remove the cover in small areas during work and not all at once.</p> <p><b>Construction</b></p> <p>Avoid scabbling (roughening of concrete surfaces) if practicable.</p> <p>Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular</p>	

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>process, in which case ensure that appropriate additional control measures are in place.</p> <p>Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.</p> <p>For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.</p> <p><b>Trackout</b></p> <p>Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the Site. This may require the sweeper being continuously in use.</p> <p>Avoid dry sweeping of large areas.</p> <p>Ensure vehicles entering and leaving the Site are covered to prevent escape of materials during transport.</p> <p>Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.</p> <p>Record all inspections of haul routes and any subsequent action in a site logbook.</p> <p>When required, dampen down with access tracks and haul routes with fixed or mobile sprinkler systems, or mobile water bowsers and implement regular cleaning.</p> <p>Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the Site where reasonably practicable).</p> <p>Locate access gates at least 10m from receptors where practicable.</p>	

Table 3.17. Ground Conditions

Potential Impact	Mitigation Measures	Monitoring Requirements
<p>Potential for risks to human health associated with waste generation, land contamination, airborne contamination and groundwater contamination.</p> <p>The discovery of any ground contamination during groundworks, such as the removal of cabling and structures.</p>	<p>As decommissioning operations are predicted to be similar to construction, the same good practice measures are predicted to apply. The mitigation measures set out below are considered to be standard measures that form part of the general environmental management of the Proposed Development:</p> <ul style="list-style-type: none"> <li>• All workers would be required to wear PPE such as dust masks as applicable;</li> <li>• Containment measures would be implemented, including drip trays, bunding or double-skinned tanks of fuels and oils; all chemicals would be stored in accordance with regulations and guidelines valid at the time, whilst spill kits would be provided in areas of fuel/oil storage;</li> <li>• All plant and machinery would be kept away from surface water bodies wherever practicable, checked regularly and, where necessary, the use of drip trays would be employed. Refuelling and delivery areas would be located away from surface water drains;</li> <li>• An ERP will be produced, which staff would have read and understood, and provisions made to contain any leak/spill;</li> <li>• Should any potentially contaminated ground, including isolated 'hotspots' of contamination and/or potential deposits of asbestos containing materials (ACM), be encountered, the contractor would be required to investigate the areas and assess the need for containment or disposal of the material. The contractor would also be required to assess whether any additional health and safety measures are required;</li> <li>• To further minimise the risks of contaminants being transferred and contaminating other soils or water, demolition workers would be briefed as to the possibility of the presence of such materials;</li> <li>• In the event that contamination is identified, appropriate remediation measures would be taken to protect demolition workers, future site users, water resources, structures, and services;</li> <li>• The contractor would be required to place arisings and temporary stockpiles away from watercourses and drainage systems, whilst</li> </ul>	None

Potential Impact	Mitigation Measures	Monitoring Requirements
	<p>surface water would be directed away from stockpiles to prevent erosion;</p> <ul style="list-style-type: none"> <li>The risk to surface water and groundwater from run-off from any contaminated stockpiles during demolition works would 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 would be designed in line with current good practice, follow appropriate guidelines and all relevant licences/permits;</li> <li>The contractor would ensure that all material is suitable for its proposed use and would not result in an increase in contamination-related risks on identified receptors, including any landscaped areas and underlying groundwater;</li> <li>Any waters removed from excavations by dewatering would be discharged appropriately, subject to the relevant permits being obtained from the EA.</li> <li>The contractor will implement a dust suppression/management system in order to control the potential risk from airborne contamination migrating off-site to adjacent sites.</li> <li>A WMP which includes details of pollution prevention will be prepared post-consent. The mitigation for pollution prevention is covered in <b>Table 3.5</b>.</li> </ul> <p><u>In line with the requirements of the CEMP and OEMP, if during the carrying out of activities during the decommissioning phase of the authorised development, contamination not previously identified is found to be present, no further work (unless otherwise agreed in writing with the relevant planning authority) must be carried out on the area(s) on which the contamination has been found until a remediation strategy detailing how such contamination must be dealt with has been submitted to and approved by the relevant planning authority. Remediation work would not commence until agreement had been reached with the planning authority regarding the intended scope of work.</u></p> <p><u>If unexpected contamination is discovered during the decommissioning phase of the authorised development, the following process would be enacted:</u></p>	

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Potential Impact	Mitigation Measures	Monitoring Requirements
	<ul style="list-style-type: none"> <li>• <u>Works in the immediate area of contamination would be halted immediately and the Environmental Manager/ECOW would be notified.</u></li> <li>• <u>Any contaminated material would be replaced back into the excavation or onto a membrane to prevent further spread, in line with best practice avoidance and mitigation measures described below.</u></li> <li>• <u>A suitably qualified geo-environmental consultant would be appointed by the Contractor to undertake investigation in accordance with Land Contamination: Risk Management process and BS 10175:2011+A2:2017 (investigation of potentially contaminated sites), the results of which would be used to develop a suitable remediation strategy, the scope of which would be agreed with the relevant planning authority.</u></li> <li>• <u>The approved remediation strategy would then be implemented with a verification report produced and submitted to the relevant planning authority to demonstrate compliance with the remediation strategy.</u></li> </ul> <p>Measures within the oOEMP and oSMP will mitigate against erosion, procedures to prevent disturbance of contaminated land, and emergency procedures to manage accidental spillages and leaks in order to minimise any risk to the soil and groundwater during the decommissioning phase.</p> <p>Land will be restored to its pre-construction condition at the end of the lifetime of the Proposed Development. The land will be returned to the landowners after decommissioning. Established tracks will be used during the decommissioning phase.</p> <p>Where practicable, the timing of works during decommissioning will be managed carefully to consider weather conditions.</p> <p>During the decommissioning phase, all concrete, hardstanding areas, foundations for the infrastructure and any internal tracks will be removed. <u>All underground cabling up to a depth of 0.9m will be removed and cable ends sealed.</u> It is assumed that all the below ground cables <u>deeper than 0.9m</u> will be left in situ, <u>unless the prevailing guidance at the time of decommissioning is for the removal of underground cables.</u></p>	



Potential Impact	Mitigation Measures	Monitoring Requirements
Impacts to land or groundwater from polluted firewater associated with the BESS	Procedures for managing firewater as detailed in the Operational Environmental Management Plan (OEMP) will remain in place during the decommissioning phase to ensure impacts on the environment are avoided.	None



## 4. Implementation and Operation

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

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

## 5. Checking and Corrective Action

### 5.1 Monitoring and Reporting

- 5.1.1 To meet the requirement of the DEMP(s), environmental monitoring of the Proposed Development and its impacts will be undertaken throughout the decommissioning phase. Monitoring requirements will be detailed in the DEMP(s).
- 5.1.2 As part of the monitoring process, the applicant will allocate a designated Safety, Health and Environment Manager supported by an EcoCoW where required, who will be present on Site throughout the decommissioning phase and when activities are commencing. The Safety, Health and Environment Manager will observe site activities and report any deviations from the DEMP, along with the action taken and general conditions at the time. The Applicant will be informed of any deviations from the DEMP as soon as practicable following identification of such issues. The Safety, Health and Environment Manager will also act as day-to-day contact with relevant local authorities and other regulatory agencies, such as the EA.
- 5.1.3 The Safety, Health and Environment Manager will arrange regular formal inspections to ensure the requirements of the DEMP. After completion of the works, the Safety, Health and Environment Manager will conduct a final review.

### 5.2 Records

- 5.2.1 The Safety, Health and Environment Manager or Project Manager will retain records of environmental monitoring and implementation of the DEMP. This will allow provision of evidence that the DEMP is being implemented effectively. These records will include:
- > Environmental Action Schedule;
  - > Licences and Approvals;
  - > Results of inspections by Safety, Health and Environment Manager/EcoCoW/ECOW/ Project Manager;
  - > Other environmental surveys and investigations; and
  - > Environmental equipment test records.
- 5.2.2 The DEMP will be updated as necessary, with a full review as required (at least quarterly) throughout the decommissioning period.
- 5.2.3 A brief report will be produced and submitted to the relevant local authorities on a quarterly basis and following completion of decommissioning. This will



summarise the monitoring process, observed deviations from the DEMP and the corrective actions taken.

### 5.3 Management Review

- 5.3.1 The DEMP will be signed off on completion of the decommissioning works by an appropriately qualified person(s).



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