FENWICK SOLAR FARM

Fenwick Solar Farm
EN010152

Framework Decommissioning Management Plan

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1. Introduction

1.1 Introduction

1.1.1 This document provides the framework for the Decommissioning Environmental Management Plan (DEMP) for Fenwick Solar Farm (hereafter referred to as 'the Scheme'). A detailed DEMP will be produced for the Scheme prior to the date of decommissioning.

1.1.2 A Development Consent Order (DCO) would provide the necessary authorisations and consents for the Scheme which comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating facility with a total capacity exceeding 50 megawatts (MW), and associated infrastructure including a Battery Energy Storage System Area (BESS Area) and an export and import connection to the national grid either at the Existing National Grid Thorpe Marsh Substation or at an existing overhead power line. Due to its total capacity exceeding 50 MW the Scheme is classified as a Nationally Significant Infrastructure Project (NSIP) under Sections 14(1)(a) and 15(2) of the Planning Act 2008 (Ref. 2) and therefore requires consent via a DCO. The decision whether to grant a DCO will be made by the Secretary of State for Energy Security and Net Zero (hereafter referred to as 'the Secretary of State') following the Examination and Recommendation by the Planning Inspectorate.

1.1.3 Decommissioning comprises the process of removing all Solar PV Panels, mounting structures and concrete blocks, cabling, inverters, transformers, switchgear, BESS and the containerised unit of the Operations and Maintenance Hub would be removed from the Solar PV Site and other associated infrastructure for recycling or disposal in accordance with good practice and market conditions at that time.

1.1.4 Within the Solar PV Site, the physical infrastructure (all Solar PV Panels, mounting structures and concrete blocks, cabling, inverters, transformers, switchgear, BESS and the containerised unit of the Operations and Maintenance Hub) will be removed to plough depth and the land returned to the landowners. This will include the areas of agricultural land where the agricultural resource has been maintained (and potentially improved) during operation, and the established habitats. 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. Any required species licences would be obtained for reinstatement works if necessary.

1.1.5 The future of the On-Site Substation, including associated control and metering buildings and 400 kV export cables (i.e. the Grid Connection Cables or Grid Connection Line Drop), would be agreed with National Grid Electricity Transmission (NGET) and/or the asset owners prior to the commencement of decommissioning. It is common practice for such infrastructure to be retained and used for another purpose after the development they were originally installed to support is decommissioned. Therefore, it is possible that the On-Site Substation and Grid Connection Cables may remain in place/operational after the decommissioning phase of

the Scheme. The DEMP therefore considers the decommissioning of this infrastructure where relevant.

1.1.6 The mode of cable decommissioning for the Grid Connection and On-Site Cables will be dependent upon government policy and good 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 up the entire length of the cable route.

1.1.7 The aim of this Framework DEMP is to demonstrate how the mitigation measures included within the Environmental Statement (ES) will be implemented. It also sets out the monitoring and auditing activities designed to ensure that such mitigation measures are carried out, and that they are effective. This document does not address the construction or operation and maintenance activities, which are subject to separate environmental management plans and procedures (**Framework Construction Environmental Management Plan (CEMP) [EN010152/APP/7.7] and Framework Operational Environmental Management Plan (OEMP) [EN010152/APP/7.8]).**

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

1.1.9 It is envisaged that a DEMP may be prepared, approved, and implemented for individual elements of the Scheme (e.g. one DEMP for works in the Grid Connection Corridor and associated Site Accesses, and one for works in the Solar PV Site and associated Site Accesses). As a result, there could be multiple DEMP(s) prepared in accordance with the parts of this Framework DEMP.

1.1.10 This document provides the likely structure of the detailed DEMP(s) and some outline information relevant to the detailed DEMP(s). The detailed DEMP(s) will be produced in line with this Framework DEMP following the grant of the DCO when the Scheme is due to be decommissioned. It will then be submitted to the relevant Local Planning Authority (LPA) for approval, in accordance with Requirement 18 of the **draft DCO [EN010152/APP/3.1].**

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 **Framework CEMP [EN010152/APP/7.7]** submitted within the DCO Application, covering issues such as transportation methods, pollution prevention, and noise management.

1.1.12 The key elements of this Framework DEMP are:

a. An overview of the Scheme, decommissioning activities and programme;

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

c. Proposed mitigation measures to prevent or reduce potential adverse environmental effects;

d. Monitoring and reporting of effectiveness of mitigation measures;

e. Corrective action procedure; and

f. Links to other complementary plans and procedures.

1.1.13 In summary, this Framework DEMP 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 detailed DEMP which will be prepared in accordance with this Framework DEMP, as a requirement of the DCO. The overall responsibility for implementation of the detailed 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 Framework DEMP 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 detailed DEMP, including any environmental information submitted in respect of them.

1.2 The Applicant

1.2.1 The Applicant (Fenwick Solar Project Limited) is a wholly owned subsidiary of BOOM Developments Limited who specialise in non-subsidised solar and battery storage projects. BOOM Developments Limited was founded in 2020, and the name BOOM is an acronym for Build Own Operate Maintain. This reflects the organisation's intentions to be involved in sustainable energy projects from day one right the way through to operation.

1.2.2 Further information on BOOM Developments Limited can be found in **ES Volume I Chapter 1: Introduction [EN010152/APP/6.1]** and the **Funding Statement [EN010152/APP/4.2].**

1.2.3 The DCO Application is submitted to the Planning Inspectorate, with the decision of whether to grant a DCO to be made by the Secretary of State for Department for Energy Security and Net Zero (hereafter referred to as the 'Secretary of State') pursuant to the Planning Act 2008 (Ref. 2).

1.3 The Site

1.3.1 The Order Limits are shown on **ES Volume II Figure 1-2: Site Boundary Plan [EN010152/APP/6.2],** identify the maximum extent of land anticipated to be acquired or used for the construction, operation and maintenance, and decommissioning phases.

1.3.2 The Order Limits comprise approximately 509 hectares (ha) of land, 407 ha of which is made up of the Solar PV Site. The Site is approximately centred

on National Grid Reference (NGR) SE 604 161 and located entirely within the City of Doncaster Council's administrative area. The surrounding landscape comprises largely agricultural fields and several small rural villages, including Fenwick, Moss, and Sykehouse, as well as the hamlet of Topham.

1.3.3 At the closest point, the Solar PV Site Boundary is located immediately adjacent to the east of the village of Fenwick and approximately 1 km west and 1 km north of the villages of Sykehouse and Moss respectively.

1.3.4 The Order Limits comprise the following elements (as shown on **ES Volume II Figure 1-3: Elements of the Site [EN010152/APP/6.2]**).

a. The Site – the collective term for all land within the Order limits comprising the Solar PV Site, Grid Connection Corridor, and Existing National Grid Thorpe Marsh Substation;

b. Solar Photovoltaic (PV) Site – the total area covered by the ground-mounted Solar PV Panels, planting and mitigation areas, Field Stations, Battery Energy Storage System (BESS), On-Site Substation, and associated infrastructure;

c. Grid Connection Corridor – the area outside the Solar PV Site in which the 400 kilovolt (kV) and associated cables (the Grid Connection Cables) would be installed between the On-Site Substation to the Existing National Grid Thorpe Marsh Substation (approximately 6 km south of the Solar PV Site). The Grid Connection Corridor has an average width of 100m; and

d. Existing National Grid Thorpe Marsh Substation – the Existing Thorpe Marsh substation (owned and operated by National Grid) where the 400 kV Grid Connection Cables would connect to the National Electricity Transmission System (NETS).

1.3.5 The Order limits also include a section of highway at the junction of the A19 and Station Road in the town of Askern to allow for abnormal indivisible load (AIL) vehicle access and escort. This area is approximately 1 ha and is centred on the approximate National Grid Reference SE 56598 13647. At this location, the works are currently anticipated to be limited to temporary traffic signal and banksman control for the period of AIL delivery whilst it is escorted to site, as shown on the **Traffic Regulation Measures Plan [EN010152/APP/2.4]** and specified in the **Draft DCO [EN010152/APP/3.1]** Schedule. Based upon preliminary swept path analysis, it is not anticipated that any street furniture is required to be removed to facilitate the manoeuvre.

1.3.6 Further details of the Site are presented in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]** and the **Outline Design Parameters [EN010152/APP/7.4].** The Outline Design Parameters set out the maximum parameters which will be met by the Applicant.

2. Decommissioning Environmental Management

2.1 Decommissioning Activities

2.1.1 The design life of the Scheme is 40 years with decommissioning to commence 40 years after final commissioning (currently anticipated to be 2030). Decommissioning is therefore anticipated to commence in 2070.

2.1.2 When the operation and maintenance phase ends, the Solar PV Site would be decommissioned. All Solar PV Panels, mounting structures and concrete blocks, cabling, inverters, transformers, switchgear, BESS and the containerised unit of the Operations and Maintenance Hub would be removed from the Solar PV Site and recycled or disposed of in accordance with good practice and market conditions at that time. In areas of archaeological mitigation, ground conditions would be considered and precautionary working~~mitigation~~ measures would be put in place (such as bog matting) to limit ground disturbance and rutting during decommissioning activities.

2.1.3 It is anticipated that some areas of habitat and biodiversity mitigation and enhancement within the Solar PV Site may be left in-situ given they could contain protected species and so relevant licences at the time would be obtained for any changes. However, the majority of the Solar PV Site would be available to be returned to its original use after decommissioning. This would include the removal of any hardstanding and reinstatement of the soil profile (using the stockpiled site won soils) in areas where top soils were removed. The undisturbed soils within the Solar PV Site would have been removed from intensive agriculture for a long period and are expected to have achieved improvements in soil structure and carbon sequestration over that time.

2.1.4 The drainage of the land within the Scheme will be checked after decommissioning. Should it become clear that any agricultural drains have been altered or removed during the operation and maintenance phase, they will be restored or the land otherwise re-drained such that agricultural activities could continue after decommissioning of the Scheme.

2.1.5 The future of the On-Site Substation, including associated control and metering buildings and 400 kV export cables (i.e. the Grid Connection Cables or Grid Connection Line Drop), would be agreed with National Grid Electricity Transmission (NGET) and/or the asset owners prior to the commencement of decommissioning. It is common practice for such infrastructure to be retained and used for another purpose after the development they were originally installed to support is decommissioned. Therefore, it is possible that the On-Site Substation and Grid Connection Cables may remain in place/operational after the decommissioning phase of the Scheme. This cannot be confirmed at this time and will depend upon demand closer to the decommissioning date.

2.1.6 All work to the Existing National Grid Thorpe Marsh Substation would remain under National Grid's control.

2.1.7 Should the Grid Connection Cables be decommissioned, the mode of their decommissioning would be dependent upon government policy and good practice at that time. Currently, the most environmentally acceptable option is considered to be 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 up the ground at regular intervals and pulling the cable through to the extraction point, avoiding the need to open up the entire length of the cable route.

2.2 Decommissioning Programme

2.2.1 Decommissioning is expected to take between 12 and 24 months and would most likely be undertaken sequentially.

2.2.2 More details on the sequence and programme of decommissioning will be provided with the detailed DEMP, to include timescales and transportation methods which would be agreed in advance with the relevant Local Planning Authority, as secured through a Requirement in the DCO.

2.3 Working Hours

2.3.1 The core working hours are defined as:

a. Monday to Friday 07.00 to 19.00 (daylight hours permitting);

b. Saturday 07.00 to 13.00 (daylight hours permitting); and

c. No Sunday or Bank Holiday working unless crucial to decommissioning or in an emergency.

2.3.2 Emergency working may extend beyond the times quoted above timescales. For these purposes, "emergency" means a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action.

2.3.3 Working hours will be shortened if working would necessitate artificial lighting and, therefore, the working day will be shorter in months with reduced daylight hours. It is not possible to avoid working in the winter period due to the length of construction programme. However, cabling and groundworks will be prioritised during the drier summer months where practicable.

2.3.4 Quiet, non-intrusive works such as the removal of Solar PV Panels may take place over longer working hours during the summer months.

2.4 Control of Noise

2.4.1 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.

2.5 Control of Light

2.5.1 Decommissioning works will generally be limited to daylight hours only, with focussed task specific lighting provided where this is not practicable. 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).

2.5.2 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.

2.5.3 Lighting will be directional with care to minimise potential for light spillage beyond the Order Limits particularly towards houses, live traffic, and habitats, and will be designed with reference to the Institute of Lighting Professionals Guidance Notes (in particular GN-8: Bats and Artificial Lighting (Ref. 4) which was produced in collaboration with the Bat Conservation Trust, and GN-1: Reduction of Obtrusive Light (Ref. 5) in so far as it is reasonably practicable.

2.6 Traffic Management and Parking Provision

2.6.1 The traffic management mitigation measures set out in the **Framework Construction Traffic Management Plan (CTMP) [EN010152/APP/7.17]** are also applicable to decommissioning.

2.6.2 A Decommissioning Traffic Management Plan (DTMP) will be developed by a Contractor prior to decommissioning in consultation with the appropriate Local Planning Authority. The DTMP will use the detailed CTMP to reflect the circumstances prevailing during the period in which decommissioning is to be carried out.

2.6.3 The measures defined in the DTMP will ensure that the impacts from decommissioning traffic on the local community (including local residents and businesses and users of the surrounding transport network) are minimised, where reasonably practicable.

2.6.4 To reduce site traffic on local roads, it is proposed to utilise internal routes through the Solar PV Area where practicable as the primary route for removal of materials and staff movements. **ES Volume II Figures 13-3: Indicative HGV Routing and 13-4: Study Area Road Network [EN010152/APP/6.2])** show the indicative Heavy Goods Vehicles (HGV) routeing for the Scheme and the roads likely to be used to access the Site.

2.6.5 If there is mud or debris on the decommissioning site and a risk of this being tracked out by vehicles onto the public highway, wheel cleaning facilities will be used by vehicles prior to exiting the Site. For loads unable to use a fixed wheel wash, it is anticipated that localised wheel washing would be set up to cater for these individually and as required to ensure no detrimental effect to the highway.

2.6.6 Vehicle swept path analysis has been conducted on HGV routes where pinch points have been noted using the largest vehicle assumed to utilise the roads (maximum legal articulated vehicle). Abnormal Indivisible Loads (AIL) vehicles have also been analysed along these routes to ensure safe journeys along the road network. The vehicle swept paths also demonstrate

that construction vehicles will be able to turn in/out of the proposed site accesses.

2.6.7 The temporary compounds will include parking provisions, the location and size of parking provisions on-site, loading and unloading areas for plant and materials, storage areas, wheel washing facilities and traffic management measures, as set out in the DTMP. It will also include a description of any laydown areas or contractor welfare areas.

2.6.8 Parking provision will also be provided at the On-Site Substation, which will remain in use beyond the decommissioning of the Scheme.

2.7 Recovery, Recycling and Disposing of Waste

2.7.1 The Contactor will separate the main waste streams on-site, prior to transport to an approved, licensed third party Waste Management Facility for recovery, recycling or disposal. The wastes generated at decommissioning will primarily be the electrical components of the Solar PV Site, BESS infrastructure, the solar PV frames, and fencing. Prior to the decommissioning works commencing, a detailed DEMP will be prepared which will provide a waste estimate, and specify key responsibilities, reporting and auditing requirements and waste recovery targets.

2.7.2 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) (Ref. 6) and the Hazardous Waste (England and Wales) Regulations (2005) (as amended) (Ref. 7). The Scheme will apply the waste management hierarchy, in priority order: prevention, preparation for reuse, recycle, other recovery and disposal.

2.7.3 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 (Ref. 8) 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 Security

2.8.1 Site security during decommissioning will be managed by the Contractor. The Solar PV Site Perimeter Fencing will remain in place throughout the duration of the decommissioning works within each Solar PV Area, 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 Solar PV Site.

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

2.9 Good Practice

2.9.1 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 Scheme, by employing good practice measures which go beyond statutory compliance, where relevant to decommissioning (Ref. 3).

2.10 Public Communication and Liaison

2.10.1 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.

2.10.2 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.

2.10.3 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 Framework DEMP sets out the mitigation measures to be included as a minimum in the detailed 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 detailed 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 2070. 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.

Table 1. Climate Change

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Greenhouse Gas (GHG) emissions from decommissioning traffic (including vehicles on site and transportation of materials) and end embodied emissions of materials and products. Increased flood risk on-site due to climate change needing to be considered in the design of the DEMP, Impact on workers – for example flooding and heatwaves.	Appropriate standard and good practice control measures will be included in the detailed DEMP, which will include: a. 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; b. Liaising with decommissioning personnel for potential to implement staff minibuses and car sharing options; c. Removing and recycling all Solar PV Panels, mounting structures and concrete blocks, cabling, inverters, transformers, switchgear and BESS where practicable, in accordance with good practice and market conditions at the time; d. Increasing recyclability by segregating decommissioning waste to be reused and recycled where reasonably practicable; e. Switching off vehicles and plant when not in use and ensuring decommissioning vehicles conform to current EU emissions standards; f. Conducting regular planned maintenance of the plant and machinery to optimise efficiency;	None required	The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP.

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	g. Implementation of the DTMP (see Section 2.6); h. Preparing a Decommissioning Resource Management Plan (DRMP) prior to works commencing, to control waste generated on-site and set goals regarding volumes of waste produced; i. Adopting the Considerate Constructors Scheme (CCS) to assist in reducing pollution from the decommissioning of the Scheme (Ref. 3); j. Named person(s) (likely the Safety, Health and Environment Manager/Ecological Clerk of Works (ECoW) to monitor weather forecasts and receive Environment Agency flood alerts. This will allow works to be planned and carried out accordingly to manage extreme weather conditions such as storms and flooding; and k. Health and safety plans developed for construction activities will be required to account for potential climate change impacts on workers, such as flooding and heatwaves. To include measures such as toolbox talks on training on dangers of extreme weather conditions.		

Table 2. Cultural Heritage

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Potential for impact upon archaeological deposits/features	Decommissioning will not have any impact beyond the already-disturbed footprint of the Scheme; therefore, it is not anticipated that decommissioning activities will have a direct physical impact upon archaeological deposits/features.	N/A	N/A
Temporary impacts on the setting of heritage assets during decommissioning associated with increased visual and noise intrusion.	Decommissioning traffic routes and modes of transport will seek to minimise impacts to numerous receptors, including heritage assets. These will be further defined in the DTMP. The Contractor will incorporate into the detailed DEMP the measures for managing cultural heritage during the decommissioning phase, as set out in the detailed Archaeological Mitigation Strategy (AMS) (in substantial accordance with the **Framework AMS [EN010152/APP/8.16]** submitted at Deadline 1). These measures will include, but not be limited to: a. Methodology for how buffer zones around heritage assets will be maintained during the decommissioning phase to achieve successful preservation of archaeological remains; b. Methodology for removal of fencing around heritage buffer zones and reversal of land to previous state (maybe needs a slight re-word); and c. Inclusion of heritage management measures in site inductions and Toolbox Talks.	To be determined as part of the detailed DEMP.	The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP.

Table 3. Ecology

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
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 include habitat and protected species surveys.	To be determined as part of the detailed DEMP.	The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the detailed DEMP.
There is potential to introduce/spread invasive non-native species (INNS) within and beyond the Order limits during decommissioning of the Scheme through vehicles/machinery and people	Pre-decommissioning surveys will be undertaken where required to provide an update on the presence and location of any INNS that could be impacted by the Scheme, the findings of which will inform the implementation of measures to prevent their spread. A Biosecurity Plan will be produced prior to decommissioning which will set out procedures to ensure that no INNS are brought into the Order Limits, exported out of the Order Limits or spread within it (e.g. Wildlife and Countryside Act 1981 (as amended) Schedule 9 species) (Ref. 9). In the event that any future infestations of INNS are identified prior to and or during the decommissioning process, the appropriate (species-dependant) 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.	Ongoing monitoring of habitats and species will be undertaken throughout decommissioning, over seen by an appointed Ecological Clerk of Works (ECoW) of suitable qualifications and experience, or in charge of a team of appropriately qualified ecologists. The ECoW will have the appropriate authority to review RAMS, oversee works and recommend action as appropriate, including temporarily	ECoW. The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the detailed DEMP.

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
		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.	
Potential for obtrusive light spill to impact on ecology.	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. Lighting to be designed in accordance with reference to the Institute of Lighting Professionals Guidance Notes (in particular GN-8: Bats and Artificial Lighting (Ref. 4) which was produced in collaboration with the Bat Conservation Trust. These lighting requirements are detailed in Section 2.5.	The SHE Manager/ECoW will undertake site checks as required, including for lighting.	SHE Manager and ECoW. The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP.
Potential for spillages to enter watercourses and impact ecology and dust deposition on sensitive ecological features.	The decommissioning phase of the Scheme will comply with industry good practice and environmental protection legislation e.g. prevention of surface and ground water pollution, fugitive dust management or amelioration. Table 4 specifies mitigation requirements in relation to the prevention of spillages and water pollution.	The SHE Manager/ECoW will undertake site checks as required.	The overall responsibility will be with the Contractor. Specific responsibilities will be

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
	Table 14 specifies mitigation requirements in relation to air quality (including dust emissions). Prior to decommissioning, the Contractor will develop an Emergency Response Plan (ERP) (see also Section 2.9 and Table 4). Unless works require the removal of culverts, no works will be undertaken within at least 10 m of watercourses which is considered sufficient to mitigate for potential hazards such as chemical spills to avoid potential direct impacts to watercourses and any protected/notable species that use them. The detailed DEMP will also specify requirements for the safe storage of chemicals/other hazardous materials (e.g. fuel) reaching watercourses during flood events during construction. The buffer from water features, together with the measures to be outlined within this Framework DEMP, will ensure all decommissioning activities would be offset from surface watercourses, other than where there is a need for crossing of a watercourse (such as for possible temporary access) or connection for surface water drainage (that may be for temporary works or for the operational Scheme).		confirmed in the detailed DEMP.

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
Removal of vegetation present within the Order Limits.	Prior to any vegetation clearance, further surveys will be required to determine the presence or likely absence of any protected species or habitats. 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) where practicable. 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 within the nesting bird period is unavoidable, vegetation will be checked for the presence of any nests by a suitably experienced ornithologist, prior to removal. If active nests are found, appropriate buffer zones will be put in place and the area monitored until follow up surveys can confirm that the young birds have fledged. Vegetation with the potential to support reptiles and amphibians 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	Pre-start surveys and daily environmental checks by nominated personnel.	ECoW. The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP.

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
	not be dismantled during their inactive season (i.e., November to February inclusive). Checks for nesting birds listed under Schedule 1 of the WCA 1981 (as amended) especially barn owl (*Tyto alba*) 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 Scheme 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.		
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 following measures will be implemented during decommissioning to protect retained vegetation, designated sites, protected species and other areas of biodiversity value from disturbance, and damage: a. The decommissioning of the Grid Connection Cables will not directly impact any watercourses or designated sites. The cables would either be left in situ or removed by opening the ground (away from the ecological sites	Pre-start surveys and daily environmental checks by nominated personnel.	ECoW. The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP.

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
	and habitats) and pulling the cable through to the extraction point; b. Dust would be managed in accordance with **ES Volume I Chapter 14: Other Environmental Topics (Air Quality) [EN010152/APP/6.1]** and Table 14. c. Solar PV Site Perimeter Fencing will remain in place throughout the duration of the decommissioning works within each Solar PV 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 Order Limits. Any temporary fencing present during decommissioning and permanent perimeter fencing will also allow continued movement of otter (Lutra lutra) along watercourses where they have been found to be present. d. Preparation of mitigation strategies for protected species and, where required, application for species licences from Natural England (including District Level License for GCN which has been pursued for the Scheme) sufficiently in advance of the works to meet with the optimum time for mitigation and to minimise any changes to the construction programme. e. Reasonable avoidance measures, including appropriate buffers (up to 30 m) around any identified active badger (Meles meles) setts or retained trees with bat roost		

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
	suitability (buffer of 15m) throughout the Order Limits will be implemented. Implementation of measures to avoid animals being injured or killed within working areas, through excluding them from such areas and preventing them falling into and becoming trapped in excavations. f. 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 15 m for individual veteran/ancient trees, 10 m from woodlands, individual trees and hedgerows with trees and at least 5 m from hedgerows without trees (Ref. 10). g. A suitably experienced ECoW (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. h. 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.		

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
	i. Checks for nesting birds listed under Schedule 1 of the WCA 1981 (as amended) (Ref. 9), especially barn owl and hobby will be undertaken prior to works (including the appropriate season prior to for monitoring purposes, and immediately prior to for vegetation clearance) and will be carried out where the Scheme 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.		
Effects on protected and, or notable species	Precautionary working method statements would be produced to specify working requirements and other impact avoidance measures and would be controlled and implemented through the detailed DEMP; Where reasonably practicable, vegetation clearance works would be undertaken outside the bird breeding season (as above); Precautionary methods of working will be adopted for vegetation clearance within areas where reptiles, notable mammals (e.g. hedgehog, brown hare, harvest mouse) or amphibians could be present, to minimise the risk of injury/killing. This incudes pre-commencement checks for	Pre-start surveys and daily environmental checks by nominated personnel.	ECoW. The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP.

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
	these species by a suitably qualified ecology prior to vegetation clearance. Vegetation with the potential to support reptiles and amphibians 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). 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; Any necessary protected species licences (including DLL for GCN) will be applied for and obtained prior to undertaking any works that might result in offences under the relevant legislation. Cleared ground would be maintained in a disturbed state in the run-up to decommissioning commencing to minimise the risk of ground nesting birds attempting to nest on cleared ground; and Precautionary measures would be implemented to prevent trapping wildlife in excavations (such as pits created for		

Potential Impact (Ecological Receptor/Baseline Information) and Scheme Location	Mitigation Measure	Monitoring	Responsibility
	cable pulling) in order to ensure compliance with animal welfare legislation. All excavations deeper than 1m would be covered or fenced overnight, 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.		

Table 4. Water Environment

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Pollution of surface water or groundwater (and any designated ecology sites that are water dependent) 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. 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; and Temporary changes in flood risk due to the removal of Solar PV Panels, site compound and storage facilities, which alter the surface water runoff from the Scheme; and Potential impacts on local water supplies.	The decommissioning of the Scheme will be undertaken in accordance with standard and good industry practice as detailed below. Where not disapplied through the DCO, there may be the need for a number of secondary permissions 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) **Good Practice Guidance** Relevant Good Practice Guidelines (Guidance for Pollution Prevention (GPP)) at the time will be adhered to. **Management of Decommissioning Site Runoff** a. 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 fences etc. or silt screens as well as consideration of the type of plant used;	Temporary drainage will be monitored throughout decommissioning. Specific details will be confirmed in detailed DEMP. 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 detailed DEMP The Water Management Plan (WMP) (to be delivered post-consent secured through a DCO Requirement) 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 Environment Agency's water quality monitoring network.	The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	b. 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 Order Limits and ensuring that they are adequately protected using drain covers, sand bags, earth bunds, geotextile silt fences, straw bales etc., or proprietary treatment (e.g. lamella clarifiers); c. 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 pollution prevention principles described in **ES**		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	Volume I Chapter 9: Water Environment [EN010152/APP/6.1]). d. To protect watercourses from fine sediment runoff, topsoil/subsoil will be stored a minimum of 20 m 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; e. Appropriately sized runoff storage areas for the settlement of excessive fine particulates in runoff will be provided; f. Decommissioning site runoff will either be treated on Site and discharged under a Water Discharge Activity Permit from the Environment Agency to Controlled Waters (potentially also including infiltration to ground) or to the nearest public sewer with sufficient capacity for treatment following discussions with Yorkshire Water, or else removed from site for disposal at an appropriate and licensed Waste Management Facility; g. Equipment and plant are to be washed out and cleaned in designated areas within the temporary decommissioning		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	Compounds, where runoff can be isolated for treatment before disposal as outlined above; h. 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; i. 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; j. 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; and k. The WMP (which will be produced post consent with the detailed DEMP) will include details of pre, during and post-		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	decommissioning water quality monitoring. This will be based on a combination of visual observations and reviews of the Environment Agency's automatic water quality monitoring network. **Management of Spillage Risk** a. Fuel will be stored and used in accordance with the relevant regulations; b. Fuel and other potentially polluting chemicals will either be in self-bunded leak proof containers or stored in a secure impermeable and bunded area (minimum capacity of 110% of the capacity of the containers, which includes 10% more capacity than is needed); c. 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 Scheme 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;		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	d. All washing down of vehicles and equipment will take place in designated areas and wash water will be prevented from passing untreated into watercourses; e. 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; f. As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses; g. All fixed plant used in the Order Limits will be self-bunded; h. Mobile plant is to be in good working order, kept clean, fitted with plant 'nappies' at all times and are to carry spill kits; i. 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 Order		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	Limits and regularly monitored and topped up. All decommissioning workers will receive spill response training and tool box talks; j. The Order Limitd will be secure to prevent any vandalism that could lead to a pollution incident; k. Decommissioning waste/debris are to be prevented from entering any surface water drainage or water body; l. 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 sand bags) or the road regularly cleaned by road sweeper; m. 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. **Management of Flood Risk** Decommissioning works undertaken adjacent to, beneath and within watercourses will comply with relevant guidance, including Environment Agency and other guidance documents.		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	Measures aimed at preventing an increase in flood risk during the decommissioning works include: a. 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 extent for areas at fluvial flood risk. If areas located within Flood 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; b. Connectivity would be maintained between the floodplain and the adjacent watercourses, with no changes in ground levels within the floodplain as far as practicable; c. During the 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 d. The construction compound site office and supervisor will be notified of any		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	potential flood occurring by use of the Floodline Warning Service or equivalent service; and e. The Main Temporary Decommissioning Compound, located south of Haggs Lane and west of the BESS Area, along with the northern most temporary satellite Construction Compound will be located outside of areas of fluvial Flood Zones 2 and 3. The eastern most temporary Construction Compound is located in Flood Zones 2 and 3, however the River Went 2024 modelling shows that it is located outside of the 1% AEP plus climate change flood extent. The Contractor would be required to produce an ERP as part of the detailed DEMP (secured through the Framework DEMP) which would provide detail of the response to an impending flood event and include: a. A 24-hour availability and ability to mobilise staff in the event of a flood warning; b. The removal of all plant, machinery and material capable of being mobilised in a flood for the duration of any holiday close down period where there is a forecast risk that the Order Limits may be flooded;		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	c. Details of the evacuation and site closedown procedures; d. Arrangements for removing any potentially hazardous material and implement more stringent protection measures; e. If water is encountered during below ground decommissioning, suitable de-watering methods would be use. Any groundwater dewatering required in excess of the exemption thresholds would be undertaken in line with the requirements of the Environment Agency; and f. Safe egress and exits are to be maintained at all times when working in excavations. When working in excavations a banksman is to be present at all times.		

Table 5. Landscape and Visual Amenity

Potential Impact	Mitigation Measure	Monitoring	Responsibilities
Visual Impacts on receptors	The Scheme will be decommissioned in accordance with the **Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14].**	Monitoring of screening is detailed in the **Framework LEMP [EN010152/APP/7.14].**	The overall responsibility will be with the contractor. The detailed LEMP (based on the Framework LEMP as secured through DCO Requirement) will set out roles and responsibilities for implementation. These will be confirmed in the detailed DEMP.
Visual Impacts on receptors	The Scheme's lighting strategy is discussed in detail in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1].** The lighting strategy at decommissioning is further described in Section 2.5 of this Framework DEMP. The proposed lighting has been designed to avoid and minimise the potential for adverse landscape and visual effects.	Monitoring requirements will be set out in the detailed DEMP.	The overall responsibility will be with the contractor. The detailed LEMP (based on the Framework LEMP as secured through DCO Requirement) will set out roles and responsibilities for implementation. These will be confirmed in the detailed DEMP.

Table 6. Arboriculture Impact Assessment

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Tree Loss, or Direct or indirect damage to retained trees.	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 and final Tree Protection Plan (TPP) as part of the detailed DEMP. 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). Where works are unavoidable within the RPA of retained trees, the final working methodology will be detailed in the Arboricultural Method Statement as part of the detailed DEMP. General guidance measures are set out in Annex D of the **ES Volume III Appendix 10-7: Arboricultural Impact Assessment [EN010152/APP/6.3].** 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 Arboricultural Method Statement submitted as part of the detailed DEMP.	Monitoring and supervision will be detailed in the Arboricultural Method Statement as part of the detailed DEMP. 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.	The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	The storage of materials and any washing, mixing or refuelling must take place in agreed allocated areas at least 5 m 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. A Biosecurity Plan will be included in the detailed DEMP, secured through the Framework DEMP.		

Table 7. Noise and Vibration

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Volumes of noise that may cause public disturbance during decommissioning operations.	Best practicable means that would be implemented during decommissioning works are presented below: a. Ensuring that all appropriate processes, procedures and measures are in place to minimise noise before works begin and throughout the decommissioning programme; b. All contractors to be made familiar with current legislation and the guidance in BS 5228 (Parts 1 and 2) which should form a prerequisite of their appointment (Ref. 11); c. 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 decommissioning programme and methodology to consider quieter methods, consideration of the location of equipment on-site and control of working hours (see Section 2.3); d. Use of modern plant, complying with applicable UK noise emission requirements; e. Hydraulic techniques for breaking to be used in preference to percussive techniques, where reasonably practicable;	The detailed 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.	Safety, Health and Environment Manager. The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the detailed DEMP

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	f. Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications; g. All plant and equipment to be properly maintained, silenced where appropriate, operated to prevent excessive noise, and switched off when not in use; h. Loading and unloading of vehicles, dismantling of site equipment or moving equipment or materials around the Order Limits to be conducted in such a manner as to minimise noise generation, as far as reasonably practicable; i. 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; j. Appropriate routing of construction traffic on public roads and along access tracks to avoid sensitive areas where practicable (to be defined in the DTMP); k. Provision of information to the relevant local authority and local residents to advise of potential noisy works that are due to take place;		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	l. Monitoring of noise complaints and reporting to the Applicant for immediate investigation and action. A display board will be installed on-site (see Section 12.14), 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; m. Unnecessary revving of engines will be avoided, and equipment will be switched off when not in use; n. Drop heights of materials will be minimised; o. Plant and vehicles will be sequentially started up rather than all together; 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 q. Works undertaken in Grid Connection Corridor would be undertaken at least 15 m from a sensitive receptor where practicable.		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Impacts to nearby residents	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. Core working hours onsite will be 07:00 to19:00 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). 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.	Daily environmental checks by nominated personnel. Specific monitoring requirements as agreed with the council.	The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP
Decommissioning traffic, plant and machinery noise at nearby NSR.	Appropriate routing of traffic on public roads and along access tracks to avoid sensitive areas where practicable (see **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]** and the	Further details are to be confirmed in the detailed DEMP.	The overall responsibility will be with the Contractor.

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	Framework Construction Traffic Management Plan (CTMP [EN010152/APP/6.2] which also contains figures detailing traffic routing); Consideration has been given to traffic routing, timing and access points to the Scheme to minimise noise impacts at existing receptors as detailed in **ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1].** Management of Heavy Goods Vehicles (HGV) on the highway network will be managed through the DTMP. The DTMP will be produced before the commencement of the decommissioning phase and will be based in part on the detailed CTMP. This provision is included in this Framework DEMP submitted as part of the DCO Application. Appropriate routing of decommissioning traffic on public roads and along access tracks will be pursuant to the DTMP.		Specific responsibilities will be confirmed in the detailed DEMP

Table 8. Socio-Economics and Land-Use

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Disruption to users of Public Rights of Way (PRoW)	A **Framework Public Rights of Way Management Plan (PRoW MP) [EN010152/APP/7.13]** is presented with the DCO Application and considers the management of PRoW during decommissioning. This will be updated and measures incorporated in to the detailed DEMP. Removal of the Solar PV Site Perimeter fencing is the last stage of demobilisation in each Solar PV Area, decommissioning activities within the Solar PV Site can therefore operate without impacts to PRoW. Within the Grid Connection Corridor, 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 Scheme as set out in the **Framework Public Rights of Way Management Plan (Framework PRoW MP) [EN010152/APP/7.13]** submitted as part of this DCO Application. 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 **Framework PRoW MP [EN010152/APP/7.13].** Management measures include, but are not limited to: a. Maximising visibility between decommissioning vehicles and other users (i.e., pedestrians, cyclists, equestrian); b. Implementing traffic management (e.g., advanced signage to advise other users of the works); and	Monitoring any temporary diversions of PRoW during the decommissioning. To be confirmed in the detailed DEMP.	The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	c. Use of manned controls where the Scheme crosses PRoW (i.e., marshals or banksmen), with a default priority that decommissioning traffic will give-way to other users.		
Disruption to local residents, businesses and community facilities	Measures to mitigate the effects of visual impacts during decommissioning are outlined in Table 5. Measures to mitigate the effects of decommissioning noise are outlined in Table 7. Measures to mitigate the effects of decommissioning traffic are outlined in Table 9. Measures to mitigate the effects on air quality are outlined in Table 14.	To be included in the detailed DEMP or as outlined in the aforementioned tables.	As outlined in the aforementioned tables.

Table 9. Transport and Access

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Increased traffic flows, including HGVs on the roads leading to the Site. Severance and intimidation associated with increased decommissioning traffic and abnormal loads.	The following embedded design mitigation measures are proposed: a. Suitable access points to enable movement of vehicles into the Site, where appropriate b. All access points that require the creation of a junction bellmouth would be designed based on the relevant standard from the Design Manual for Roads and Bridges (DMRB) CD 123 Geometric Design of at Grade Priority and Signal-Controlled Junctions and in consultation with the local highway authority, thereby negating any potential safety impact associated with construction activity (Ref. 12). Further details on access designs are provided within the **Framework CTMP [EN010152/APP/7.17]** c. HGVs and AILs will be routed in accordance with the findings of the routing review for large vehicles as set out in the **Framework CTMP [EN010152/APP/7.17].** d. Managing the areas where traffic may have to use the road network, by providing appropriate visibility splays between construction vehicles and other road users, implementing traffic management (e.g. advanced signage to advise other users of	The appointed contractor will undertake such monitoring as is necessary, with examples provided in the mitigation/enhancements column. Further details to be confirmed in the detailed DEMP. Other responsibilities are to be confirmed in the detailed DEMP. The contractor will consult with National Highways as part of the preparation of the detailed DEMP.	Named person as appointed by the Contractor to oversee management, monitoring and implementation of the individual measures within the detailed DTMP. Other responsibilities are to be confirmed in the detailed DEMP.

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	the works, as well as manned controls at each crossing point (marshals/banksmen)), with a default priority that construction traffic will give-way to other users. This will also apply where construction traffic and PRoW may intersect; e. Restricting HGV movements to certain routes as follows: Moss Road – SRN, A19; f. Restricting HGV movements to ensure arrivals/departures between 09:00 and 17:00 to avoid increasing traffic levels on the surrounding highway network during the typical weekday peak hours; g. Implementing a Delivery Management System to control the bookings of HGV deliveries from the start of the construction period. This will be used to regulate the arrival times of HGVs via timed delivery slots, as well as to monitor compliance with HGV routing. In addition, adequate space will be made available within the Solar PV Site to ensure no queuing back onto the surrounding road network occurs; h. Implementing a monitoring system to record the route of all HGVs travelling to and from the Scheme, to record any non-compliance with the agreed routing strategy/delivery hours and to communicate any issues to the		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	relevant suppliers to ensure the correct routes and times are followed; i. Encouraging workers 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 Scheme; j. Providing limited (but sufficient) on-site car and cycle parking to accommodate the expected parking demand of workers for the Scheme; and k. 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 under the Road Vehicle Authorisation of Special Types Order 2003.		

Table 10. Soils and Agricultural Land

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
The Scheme has the potential to impact agricultural land during Decommissioning. The Scheme has the potential to impact soil resources in terms of disturbance and damage. Improvements in soil quality may also arise. The Scheme has the potential to result in a loss of soil resources, including related biosecurity effects.	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 **Framework SMP [EN010152/APP/7.10]** 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 standard good practice measures for the stripping, handling and storage of soil materials, in line with the SMP. The following main points should be observed during all soil handling tasks: a. No trafficking/driving of vehicles/plant or materials storage to occur outside designated areas; b. No trafficking/driving of vehicles/plant on reinstated soil (topsoil or subsoil); c. Only direct movement of soil from donor to receptor areas (no triple handling and/or ad hoc storage); d. Soils will only be moved under the driest practicable conditions, and this must take account of prevailing weather conditions; e. Soil handling will be undertaken outside of the (wetter) winter period (October to March inclusive) where practicable and will not be	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 detailed DEMP.	The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the detailed DEMP

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	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 detailed SMP; f. No mixing of topsoil with subsoil, or of soil with other materials; g. Soil only to be stored in designated soil storage areas, away from watercourse to avoid sediment in runoff; h. Soils of different types to be stored separately. Clear records of the stockpiles (including annotated plans) will be maintained. i. All plant and machinery must always be maintained in a safe and efficient working condition; j. Daily records of operations undertaken, and site and soil conditions will be maintained; k. Low ground pressure (LGP models) or tracked vehicles will be used where practicable. Soil handling operations will be appropriately monitored to ensure compliance with the SMP to ensure soils are suitable for reuse within the Scheme. The appropriate management of soil resources will maintain soil volumes and quality to prevent loss/lowering of Agricultural Land Classification (ALC) grade pre- and post-decommissioning and thus		

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	potential loss of Best and Most Versatile (BMV) status. Application of measures set out in Defra's 'Code of practice for the sustainable use of soils on construction sites' (Ref. 13) would ensure that the restored soils are appropriately managed allowing their quality and function to be retained upon reinstatement and that any agricultural land is restored to the same quality (ALC grade) as prior to construction. 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. Access roads and foundations/hardstanding areas within the Solar PV Site will be restored using the soils which were striped 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. It is anticipated that some areas of habitat and biodiversity mitigation and enhancement may 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. The loss of soil resource may contribute to the spread of disease and pathogen transfer, due to the transfer of soil (and incorporated seed/spore bank) from		

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	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 may 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. UK Government's website (relevant at the time of writing) advertising current occurrences and imposed restrictions with regards to animal and plant diseases should be checked throughout decommissioning. The Contractor should also subscribe to the Animal Disease Alert Subscription Service. All restrictions will be adhered to and may include additional biosecurity measures being implemented such as restricted movements within prevention zones and additional measures around the disinfection of plant and equipment (including boots and manual tools). Soil stockpiles anticipated to be in place for longer than six months should 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 that could spread seed onto adjacent land. Stockpiles will be monitored for the presence of undesirable weed species and the stockpile vegetation cover will be managed as appropriate.		

Table 11. Telecommunications, Television Reception and Utilities

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Potential to affect existing utility infrastructure above and below ground	The risk of damage to utilities during decommissioning will be minimised through mitigation, which will involve: a. Locating decommissioning activities outside of utilities' protected zones; and b. 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).	No monitoring required.	To be confirmed in the detailed DEMP.

Table 12. Material and Waste

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Disposal of waste. Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately. Impacts of waste on the surrounding environment	During decommissioning, the Scheme will aim to prioritise waste prevention, followed by preparing for reuse, recycling and recovery and lastly disposal to landfill as per the waste hierarchy. These measures will be set out in a Decommissioning Waste Management Plan (DWMP). 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. The types, quantities and destination of waste generated during the decommissioning phase would be identified, measured and recorded through the detailed DEMP. The detailed DEMP will set out: a. The waste streams that will be generated; b. How the waste hierarchy will be applied to these wastes; c. Good practice measures for managing waste; and d. Roles and responsibilities for waste management. To reduce the potential impacts from materials and waste, and to achieve high levels of sustainability in the Scheme as a whole, the Contractor will apply the principles of the waste hierarchy and adopt best practice measures (BPM) which go beyond statutory compliance. This may include BPMs set out in construction industry guidance. The following approaches will be implemented, where practicable, to minimise the quantity of waste arising and requiring disposal during decommissioning:	To be defined in the DWMP. 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 monitoring and reporting of waste types, quantities and management methods.	The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the detailed DEMP.

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	a. Segregation of waste at source, where practical, to facilitate a high proportion and high-quality recycling; and b. 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. 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: a. 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; b. Burning of waste or unwanted materials will not be permitted on-site; c. 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; d. All workers will be required to use appropriate personal protective equipment whilst performing activities on-site; e. Any waste effluent will be tested and, where necessary, disposed of at a correctly licensed facility by a licensed specialist contractor/s; and f. 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,		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	and the destinations of this waste, in accordance with the relevant regulations.		

Table 13. Major Accidents and Disasters

Potential Impact	Mitigation Measure	Monitoring
A Biosecurity Plan will be provided as an appendix, to the detailed 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. 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 website at the current time and whatever alternative is available at decommissioning will be checked accordingly). All works will be undertaken in accordance with relevant Health and Safety legislation and guidance. Details of fire, police, emergency services and hospitals will be publicised and included in the site induction. The relevant risk assessments for safety during decommissioning will be required and produced by the contactor prior to construction, which will be implemented to minimise the risk of accidents and disasters on site. Measures to mitigate the risks of major accidents and disasters are covered in the following tables: Table 1. Climate Change, Table 3. Ecology, Table 4. Water Environment, Table 9. Transport and Access, Table 11. Telecommunications, Television Reception and Utilities and Table 12. Material and Waste.		

Table 14. Air Quality

Potential Impact	Mitigation Measure	Monitoring	Responsibility
Increased nitrogen dioxide (NO_2) and particulate matter (PM_{10}) from on-site and off-site construction vehicle/plant emissions. Increased particulates and deposited dust from Site activities, materials transportation, storage and handling, including use of haul roads	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, in line with current guidance, would apply. **Communications** a. Develop and implement a stakeholder communications plan that includes community engagement before work commences on Site. b. 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. c. Display the head or regional office contact information. d. Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority (City of Doncaster Council). The level of detail will depend on the risk, and should include as a minimum the highly recommended measures within the IAQM guidance. The desirable measures should be included as appropriate for the	Measures in the detailed DEMP will include the implementation of: a. Daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Local Authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of Site, with cleaning to be provided if necessary. b. Regular Site inspections to monitor compliance with the DMP: record inspection results, and make an inspection log available to the Local Authority when asked. Increase the frequency of Site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. c. Inspection of maintenance schedules for construction vehicles, plant and machinery. d. Inspection and recording procedures relating to the level of	SHE Manager. The overall responsibility will be with the Contractor. Specific responsibilities will be confirmed in the detailed DEMP.

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	Site. The DMP may include monitoring of dust deposition, dust flux, real-time PM_{10} continuous monitoring and/or visual inspections. **Site Management** a. Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. b. Make the complaints log available to the Local Authority City of Doncaster Council when asked. c. Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book. d. Hold regular liaison meetings with other high risk construction sites within 500 m of the Order Limits, 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. **Preparing and maintaining the Site** a. Plan decommissioning activity so that machinery and dust causing activities are	traffic movements, use and condition of haul routes.	

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	located away from receptors, as far as is possible. b. Avoid site runoff of water or mud. c. Keep site fencing, barriers and scaffolding clean using wet methods. d. Remove materials that have a potential to produce dust from site as soon as possible, unless being reused on Site. If they are being reused on-site cover as described below. e. Cover, seed or fence stockpiles to prevent wind whipping. f. Operating vehicle/machinery and sustainable travel. g. Ensure all vehicles switch off engines when stationary – no idling vehicles. h. Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable. i. Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced work areas. j. Produce a Delivery Management System (may also be referred to as a Decommissioning Logistics Plan) to manage the sustainable removal of goods and materials.		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	k. Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing). **Operations** a. Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems; b. Ensure an adequate water supply on the Site for effective dust/particulate matter suppression/ mitigation, using non-potable water where practicable and appropriate; c. Use enclosed chutes and conveyors and covered skips; d. Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate; and e. Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. **Waste management**		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	a. Avoid bonfires and burning of waste materials; **Earthworks** a. Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable; b. Use Hessian, mulches or tackifiers (chemical compounds used to help adhersion of soil in a stockpile) where it is not possible to re-vegetate or cover with topsoil, as soon as practicable; and c. Only remove the cover in small areas during work and not all at once **Construction** a. Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place; and b. For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust. **Trackout** a. Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the		

Potential Impact	Mitigation Measure	Monitoring	Responsibility
	Site. This may require the sweeper being continuously in use; b. Avoid dry sweeping of large areas; c. Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport; d. Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable; e. Record all inspections of haul routes and any subsequent action in a Site log book; f. Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned; and g. Access gates to be located at least 10 m from receptors where practicable.		

Table 15. Ground Conditions

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
Potential for risks to human health associated with waste generation, land contamination, airborne contamination and groundwater contamination. The discovery of any ground contamination during groundworks, such as the removal of cabling and structures.	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 Scheme: a. All workers would be required to wear Personal Protective Equipment (PPE) such as dust masks as applicable; b. 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; c. 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; d. An ERP will be produced, which staff would have read and understood, and provisions made to contain any leak/spill; e. 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	None	To be included in the detailed DEMP.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	assess whether any additional health and safety measures are required; f. To further minimise the risks of contaminants being transferred and contaminating other soils or water, decommissioning workers would be briefed as to the possibility of the presence of such materials; g. In the event that contamination is identified, appropriate remediation measures would be taken to protect decommissioning workers, future site users, water resources, structures, and services; h. The contractor would be required to place arisings and temporary stockpiles away from watercourses and drainage systems, whilst surface water would be directed away from stockpiles to prevent erosion; i. The risk to surface water and groundwater from run-off from any contaminated stockpiles during decommissioning 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; j. 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;		

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	k. Any waters removed from excavations by dewatering would be discharged appropriately, subject to the relevant permits being obtained from the Environment Agency. The contractor will implement a dust suppression/management system in order to control the potential risk from airborne contamination migrating off-site to adjacent sites. A WMP which includes details of pollution prevention will be prepared post-consent. The mitigation for pollution prevention is covered in Table 4.		

4. Complementary Plans and Procedures

4.1.1 A suite of complementary environmental plans and procedures for the decommissioning phase will be developed alongside the detailed DEMP. These plans and procedures will build on the principles and procedures set out in this Framework DEMP and described in the ES. These supporting and supplementary plans and procedures will be clearly outlined in, and appended to, the detailed DEMP(s). As set out in the sections above, these will include (but not be limited to):

a. DTMP;
b. DRMP;
c. ERP;
d. LEMP;
e. SMP;
f. DWMP;
g. DMP; and
h. WMP.

5. Implementation and Operation

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

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

b. Training requirements for relevant personnel on environmental topics;

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

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

e. Communication methods;

f. Document control;

g. Monitoring, inspections and audits of site operations; and

h. Environmental emergency procedures.

6. Checking and Corrective Action

6.1 Monitoring and Reporting

6.1.1 To meet the requirement of the detailed DEMP(s), environmental monitoring of the Scheme and its impacts will be undertaken throughout the decommissioning phase. Monitoring requirements will be detailed in the detailed DEMP(s).

6.1.2 As part of the monitoring process, the Contractor will allocate a designated Safety, Health and Environment Manager supported by an Ecological Clerk of Works (ECoW) where required, who will be present on Site throughout the decommissioning phase and when are activities are commencing. The Safety, Health and Environment Manager will observe site activities and report any deviations from the detailed DEMP, along with the action taken and general conditions at the time. The Applicant will be informed of any deviations from the detailed 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 Environment Agency.

6.1.3 The Safety, Health and Environment Manager will arrange regular formal inspections to ensure the requirements of the detailed DEMP. After completion of the works, the Safety, Health and Environment Manager will conduct a final review.

6.2 Records

6.2.1 The Safety, Health and Environment Manager or Project Manager will retain records of environmental monitoring and implementation of the detailed DEMP. This will allow provision of evidence that the detailed DEMP is being implemented effectively. These records will include:

a. Environmental Action Schedule;

b. Licences and Approvals;

c. Results of inspections by Safety, Health and Environment Manager/ ECoW/ Project Manager;

d. Other environmental surveys and investigations; and

e. Environmental equipment test records.

6.2.2 The detailed DEMP will be updated as necessary, with a full review as required (at least quarterly) throughout the decommissioning period.

6.2.3 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 detailed DEMP and the corrective actions taken.

6.3 Management Review

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

7. References

Ref. 1 HMSO (2017) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Available at: https://www.legislation.gov.uk/uksi/2017/572/pdfs/uksi_20170572_en.pdf.

Ref. 2 HMSO (2008) The Planning Act 2008. Available at: https://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga_20080029 _en.pdf

Ref. 3 Considerate Constructors Scheme (CCS) (2024) Considerate Constructors Scheme. Available at: https://www.ccscheme.org.uk/. [Accessed 3 January 2024].

Ref. 4 Institute of Lighting Professionals and the Bat Conservation Trust (2018). Guidance Note 8 Bats and artificial lighting. Available at: https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/. [Accessed 3 January 2024].

Ref. 5 Institute of Lighting Professionals and the Bat Conservation Trust (2021). Guidance Note 1 for the reduction of obtrusive light 2021. Available at: https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2021/. [Accessed 3 January 2024].

Ref. 6 HMSO (2011). Waste (England and Wales) Regulations 2011. Available at: https://www.legislation.gov.uk/uksi/2011/988/contents [Accessed 3 January 2024].

Ref. 7 HMSO (2005). Hazardous Waste Regulations 2005. Available at: https://www.legislation.gov.uk/uksi/2005/894/contents [Accessed 3 January 2024].

Ref. 8 Contaminated Land: Applications in Real Environments (CL:AIRE) (2011). Definition of Waste: Development Industry Code of Practice. Available at: https://www.claire.co.uk/projects-and-initiatives/dow-cop [Accessed 25 June 2024].

Ref. 9 HMSO (1981). The Wildlife & Countryside Act 1981 (as amended).

Ref. 10 British Standards Institution (BSI). (2012) BS 5837: Trees in relation to design, demolition and construction – Recommendations.

Ref. 11 British Standards Institution (BSI). (2014) BS 5228: Code of practice for noise and vibration control on construction and open sites. London: BSI. Available at: https://shop.bsigroup.com/products/code-of-practice-for-noise-and-vibration-control-on-construction-and-open-sites (Accessed: [24 September 2024]).

Ref. 12 National Highways (2023) Design Manual for Roads and Bridges (DMRB) CD 123 Geometric Design of at Grade Priority and Signal-Controlled Junctions. Available at: https://www.standardsforhighways.co.uk/dmrb/search/7b19dc2f-62f0-4182-bd54-5c1cf01b3f0e (Accessed: 25 September 2024).

Ref. 13 Defra (2009). Code of practice for the sustainable use of soils on construction sites. Available at: https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites. [Accessed 30 October 2023].

Abbreviations

Abbreviation/Term	Definition
ACM	Asbestos Containing material
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
BOOM	Build Own Operate Maintain
BPM	Best Practice Measures
BS	British Standard
CCS	Considerate Constructors Scheme
CCTV	Closed-circuit television
CEMP	Construction Environmental Management Plan
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DEMP	Decommissioning Environmental Management Plan
DLL	District Level Licencing
DMBR	Design Manual for Roads and Bridges
DMP	Dust Management Plan
DMS	Delivery Management System
DRMP	Decommissioning Resource Management Plan
DTMP	Decommissioning Traffic Management Plan
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
ERP	Emergency Response Plan
ES	Environmental Statement
GCN	Great Crested Newt
GHG	Greenhouse Gas
GPP	Good Practice Guidance
ha	Hectares
HGV	Heavy Goods Vehicles

Abbreviation/Term	Definition
IAQM	Institute of Air Quality Management
INNS	Invasive Non-Native Species
IR	Infrared
LEMP	Landscape and Ecological Management Plan
LGP	Low Ground Pressure
LPA	Local Planning Authority
LWS	Local Wildlife Site
MW	megawatts
NETS	National Electricity Transmission System
NGET	National Grid Electricity Transmission
NGR	National Grid Reference
NO_2	Nitrogen Dioxide
NSIP	Nationally Significant Infrastructure Project
OEMP	Operational Environmental Management Plan
LEMP	Landscape and Ecological Management Plan
PIR	Passive Infra-Red
PM_{10}	Particulate Matter
PPE	Personal Protective Equipment
PRoW	Public Rights of Way
PRoWMP	Public Rights of Way Management Plan
PV	Photovoltaic
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
WMP	Waste Management Plan

Abbreviation/Term	Definition