

**Tillbridge Solar Project EN010142** 

# Volume 7

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# 1. Introduction

# 1.1 Background

- 1.1.1 Tillbridge Solar Ltd (hereafter referred to as 'the Applicant') is seeking consent for the construction, operation and decommissioning of the Tillbridge Solar Project (hereafter referred to as the 'Scheme'). This will require an application for a Development Consent Order (DCO), which has been submitted to the Planning Inspectorate, with the decision of whether to grant a DCO being made by the Secretary of State for Energy Security and Net Zero (Secretary of State) pursuant to the Planning Act 2008 (Ref 1) (hereafter referred to as the 'Application').
- 1.1.2 This Framework Decommissioning Environmental Management Plan (DEMP) has been prepared to accompany the Environmental Statement (ES) [EN010142/APP/6.1] and provides a framework for the management of environmental impacts during the decommissioning phase of the Scheme.
- 1.1.3 If the Application is approved, a DEMP will be produced for the Scheme following the appointment of a Principal Contractor and prior to the start of decommissioning. The DEMP will be prepared in substantial accordance with this Framework DEMP, as a requirement of the DCO and approved by the relevant planning authorities.
- 1.1.4 Decommissioning comprises the process of removing all solar PV array infrastructure including modules, mounting structures, cabling inverters and transformers and concrete foundations to those elements, for recycling or disposal in accordance with good practice and market conditions at that time.
- 1.1.5 Decommissioning will take between 12 and 24 months in phases. There would be two main phases associated with this; the first phase would remove the above ground structures followed by the second phase for the removal of below ground elements of the Scheme. 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 land 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.
- 1.1.6 During decommissioning, all infrastructure associated with the Scheme will be removed and recycled or disposed of in accordance with good practice and market conditions at that time. This is with the exception of the cabling in the Cable Route Corridor, which may remain in-situ, depending upon government policy and best practice at that time. In addition, the future of the substations and the Solar Farm Control Centre building would be agreed with the relevant Local Planning Authority prior to commencement of decommissioning.
- 1.1.7 The aim of this Framework DEMP is to demonstrate how the mitigation measures included within the ES will be implemented. It also sets out the

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- monitoring and auditing activities designed to ensure that such mitigation measures are carried out, and that they are effective.
- 1.1.8 This document does not address the construction or operational activities associated with the Scheme, which are subject to separate environmental management plans and procedures. Construction and operational activities are discussed in the following (submitted as part of the Application):
  - a. Framework Construction Environmental Management Plan (CEMP) [EN010142/APP/7.8].
  - b. Framework Operational Environmental Management Plan (OEMP) [EN010142/APP/7.9].
- 1.1.9 An Environmental Impact Assessment (EIA) has been undertaken for the Scheme and an ES has been prepared in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations) (Ref 2). 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.
- 1.1.10 It is envisaged that a DEMP may be prepared, approved, and implemented for individual parts of the Scheme. As a result, there could be multiple DEMP(s) prepared in accordance with the parts of this Framework DEMP.
- 1.1.11 This document provides the likely structure of the DEMP(s), as well as outline information relevant to the DEMP(s). It indicates what additional information might be included under each sub-section within the DEMP(s). This Framework DEMP is designed with the objective of ensuring compliance with the relevant environmental mitigation measures set out within the ES.
- 1.1.12 The nature of the decommissioning activities and potential for likely significant effects would be similar to construction. The DEMP(s) therefore include similar measures to those included in the **Framework CEMP** [EN010142/APP/7.8], covering issues such as transport and access, pollution prevention, and noise management.
- 1.1.13 The key elements of this Framework DEMP are:
  - a. An overview of the Scheme, decommissioning activities and programme;
  - b. Prior assessment of potential environmental impacts (through the EIA);
  - c. Mitigation measures to prevent or reduce potential adverse impacts;
  - d. Monitoring of effectiveness of mitigation measures;
  - e. Corrective action procedure; and
  - f. Links to other complementary plans and procedures.
- 1.1.14 In summary, this Framework DEMP identifies 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.

- 1.1.15 The appointed Principal Contractor(s) will be responsible for working in accordance with the environmental controls documented in the DEMP(s) which will be prepared in substantial accordance with this Framework DEMP, as a requirement of the DCO. The overall responsibility for implementation of the DEMP(s) will lie with the Principal Contractor as a contractual responsibility to the Applicant, as the Applicant is ultimately responsible for compliance with the requirements of the DCO.
- 1.1.16 Any additional licences, permits or approvals that are required will be listed in the DEMP(s), including any environmental information submitted in respect of them.
- 1.1.17 This document has been updated to take into account comments raised by Interested Parties through their relevant representations. At Deadline 3, this document has been updated in response to the Examining Authority's First Written Questions. The document references have not been updated from the original submission. For the most up-to-date documents, the reader should access these through the Guide to the Application [EN010142/APP/1.2(Rev03Rev05)] and Schedule 13 of the draft DCO [EN010142/APP/3.1(Rev03Rev04)].

# 1.2 Scheme Description

- 1.2.1 The Scheme will comprise the construction, operation (including maintenance), and decommissioning of ground-mounted solar photovoltaic (PV) arrays. The Scheme will also include associated development to support the solar PV arrays.
- 1.2.2 The Scheme is made up of the Principal Site, the Cable Route Corridor and works to the existing National Grid Cottam Substation. The Principal Site comprises the solar PV arrays, electrical substations, grid balancing infrastructure, cabling and areas for landscaping and ecological enhancement.
- 1.2.3 The associated development element of the Scheme includes but is not limited to access provision; a Battery Energy Storage System (BESS), to support the operation of the ground mounted solar PV arrays; the development of on-site substations; underground cabling between the different areas of solar PV arrays; and areas of landscaping and biodiversity enhancement.
- 1.2.4 The Scheme also includes a 400kV underground Cable Route Corridor of approximately 18.5km in length connecting the Principal Site to the National Electricity Transmission System (NETS) at the existing National Grid Cottam Substation. The Scheme will export and import electricity to the NETS.
- 1.2.5 A full description of the Scheme is included in **Chapter 3: Scheme Description** of the ES **[EN010142/APP/6.1]**. An overview of the Scheme and its environmental impacts is provided in the ES **Non-Technical Summary [EN010142/APP/6.4]**.

# 2. Decommissioning Environmental Management

# 2.1 Introduction

2.1.1 This section sets out the general arrangements for the decommissioning of the Scheme.

# 2.2 Roles and Responsibilities

- 2.2.1 Key roles and responsibilities during the construction phase in managing environmental impacts will likely include, but are not limited to:
  - a. **Principal Contractor** Appointed by the Applicant to manage the health and safety risks associated with the Scheme.
  - a. Site Manager Overall responsibility for activity on-site and will be based on-site full time.
  - b. **Decommissioning Project Manager** Overall responsibility for ensuring all elements in the DCO, DEMP(s) and all environmental legal and other requirements are implemented, and appropriately resourced, managed, reviewed and reported.
  - c. **Environment Manager** Responsible for the overall management of environmental aspects on-site, ensuring environmental legislation and best practices are complied with, and environmental mitigation and monitoring measures identified are implemented. The Environment Manager will oversee environmental monitoring on-site and carry out regular environmental site inspections, reporting and responding to any incidents or non-compliance. The Environment Manager will liaise with relevant environmental bodies and other third parties as appropriate.
  - d. **Environmental Clerk of Works (ECoW)** Oversee the management of and providing advice about environmental risks during construction including, for example, management of protected species, surface water management, pollution, air quality and noise. This role may be merged with Environment Manager and /or Flood Warden.
  - e. **Ecological Clerk of Works (EcoCoW)** Management of the risks to biodiversity on construction sites, advising protecting valued biodiversity features and providing practical solutions.
  - f. **Flood Warden** There will be a dedicated responsibility to be prepared for, and manage, the response to flood incidents and warnings, by using the Floodline Warnings Direct or equivalent service.
  - g. **Health and Safety Manager** Responsible for the monitoring and controlling of health and safety compliance and related rules and regulations on-site.
  - h. **Community Liaison Officer** A Community Liaison Group will be set up in accordance with the relevant DCO requirement prior to construction and will continue through until final commissioning of the

Scheme as a formal forum for local issues to be raised. A Community Liaison Officer will be appointed to lead discussions with local communities, and also act as the primary point of contact should there be any queries or complaints.

2.2.2 These roles and responsibilities are indicative and will be confirmed in the detailed DEMPs.

# 2.3 Decommissioning Activities

- 2.3.1 The Scheme will be operational for 60 years and thereafter, the condition of equipment will be reviewed to determine whether it remains in a viable condition to continue operation after that time.
- 2.3.2 When the operational phase ends, the Scheme will require decommissioning. During decommissioning, all infrastructure associated with the Scheme will be removed and recycled or disposed of in accordance with good practice and market conditions at that time. This is with the exception of the cabling in the Cable Route Corridor, which may remain in-situ. The mode of cable decommissioning for the Cable Route Corridor and interconnecting cables will be dependent upon government policy and best practice at that time. Currently, the most environmentally acceptable option is leaving the cables in situ, as this avoids disturbance to overlying land and habitats and to neighbouring communities. Alternatively, the cables can be removed by opening the ground at regular intervals and pulling the cable through to the extraction point, avoiding the need to open up the entire length of the cable route.
- 2.3.3 In addition, the future of the substations and the Solar Farm Control Centre building would be agreed with the relevant Local Planning Authority prior to commencement of decommissioning.
- 2.3.4 The drainage of the land within the Scheme will be checked and grassed after decommissioning. Should any agricultural drains be altered or removed, they will be restored such that agricultural activities could continue after decommissioning of the Scheme.
- 2.3.5 Areas of habitat and biodiversity mitigation and enhancement, as well as permissive paths delivered as part of the Scheme would remain up until the land is returned to the previous landowners. Following this, the landowners would choose how the land is to be used and managed.
- 2.3.6 Decommissioning access will be taken from the A631 Harpswell Lane Principal Site accesses via the existing T-Junctions (Principal Site Access 2 and 3), via Principal Site Access 1 on the A631 Harpswell Lane and Principal Site Access 4 on B1398 Middle Street. In addition, there will be four secondary accesses, two off School Lane and two off Common Lane. Existing access routes across the Principal Site will be used.

# 2.4 Decommissioning Programme

2.4.1 The operational life of the Scheme is 60 years and decommissioning is therefore estimated to be no earlier than 2088. This will allow the land (that

- has previously been intensively farmed) to recover, ultimately safeguarding the agricultural usage of this land for future generations.
- 2.4.2 Decommissioning will take between 12 and 24 months and will be undertaken in phases. The first phase would remove the above ground structures followed by the removal of below ground elements of the Scheme.
- 2.4.3 More details on the decommissioning phasing will be provided within the DEMP(s), prior to decommissioning commencing. This would include timescales and transportation methods which would be agreed in advance with the relevant LPA.

# 2.5 Working Hours

2.5.1 Working hours on-site will run from 7am until 7pm Monday to Friday, and 7am to 1pm on Saturday. Decommissioning staff will travel to the Site pre-07:00 and depart the site post-19:00 (for weekdays). No work will take place on Sundays or public holidays.

# 2.6 Control of Noise

2.6.1 For all works that are undertaken outside of core work periods, applications would be made on a voluntary basis for Section 61 consents, variations and dispensations under the Control of Pollution Act 1974 (COPA) (Ref 4), or equivalent process at the time if this process has been superseded. These applications will need to be obtained by the Principal Contractor and agreed with the LPA and contain details on the methodology, mitigation, communication strategy and monitoring. See Section 3 for all mitigation measures related to noise.

# 2.7 Control of Light

- 2.7.1 Temporary site lighting during decommissioning may be required in areas where natural lighting is unable to reach (sheltered/confined areas) and during core working hours within winter months. Artificial lighting will be provided to maintain sufficient security and health and safety for the site, whilst adopting mitigation principles to avoid excessive glare, and minimise light spill to nearby receptors (including ecology and residents), outside of the Order limits as far as reasonably practicable.
- 2.7.2 All temporary lighting will be deployed in accordance with the following commitments to prevent or reduce the impact on human and ecological receptors:
  - The use of lighting will be minimised to that required for safe site operations;
  - b. Lighting will utilise directional fittings to minimise outward light spill and glare (e.g. via the use of light hoods/cowls which direct light below the horizontal plane, preferably at an angle greater than 20° from horizontal); and
  - c. Lighting will be directed towards the middle of the site rather than towards the boundaries.

# 2.8 Traffic Management

- 2.8.1 During decommissioning, the Principal Contractor 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.
- 2.8.2 The final Decommissioning Traffic Management Plan (DTMP) will be developed by the Principal Contractor prior to decommissioning in consultation with the appropriate LPAs. This will include a Decommissioning Worker Travel Plan (DWTP) to utilise sustainable modes of transport for journeys to and from the site. Both the DTMP and DWTP will use, as their starting point, the measures detailed in Framework Construction Traffic Management Plan (CTMP) [EN010142/APP/7.11], updated to reflect the circumstances prevailing during the period in which decommissioning is to be carried out.

# 2.9 Parking Provisions

- 2.9.1 Parking provisions for the decommissioning works will be set out within the DTMP.
- 2.9.2 A self-contained wheel cleaning facility will be used by vehicles prior to exiting the Order limits onto the public highway if there is mud or debris from the decommissioning site. For loads unable to use the fixed wheel wash facility, localised wheel washing will be set up to ensure no detrimental effect to the highway.

# 2.10 Recycling, Recovery and Disposing of Waste

- 2.10.1 In order to control the waste generated on-site and removal of materials, the Applicant will separate the main waste streams on-site, prior to transport to an approved, licensed third party waste facility for recycling, recovery or disposal.
- 2.10.2 Prior to the decommissioning works commencing, a Decommissioning Resource Management Plan (DRMP) (also referred to as a Site Waste Management Plan) will be prepared by the Applicant, which will provide a waste estimate, specify key responsibilities, reporting and auditing and waste recovery targets.
- 2.10.3 The Waste Duty of Care will be followed for all waste generated on-site. All waste to be removed from the site will be undertaken by fully licensed waste carriers and taken to suitably licensed waste facilities and managed in line with the requirements of the Hazardous Waste Regulations (2005) (Ref 4) and the Waste (England and Wales) Regulations (2011) (Ref 6). The Scheme will apply the waste hierarchy, in priority order; prevention, preparation for reuse, recycled, other recovery and disposal.
- 2.10.4 The Applicant is committed to maximise recycling and reuse of the Scheme components at the end of their life. There are already organisations around the UK and Europe specialising in solar recycling, such as PV Cycle and the European Recycling Platform. They are working with solar developers to minimise electrical waste and recycling old panels in line with the Waste

Electrical and Electronic Equipment (WEEE) Regulations (Ref 7). In addition, companies like SECONDSOL offer a marketplace service for the purchase and selling of second hand PV panels and equipment, where there is still a good level of life in the equipment remaining. Panels that have developed faults or damage can also be refurbished and repowered by specialist companies and the manufacturers and resold or reinstalled. The Applicant will adhere with the industry best practice outlined in Solar Power Europe's Lifecycle Quality Best Practice Guidance (Ref 31).

# 2.11 Responding to Environmental Incidents and Emergencies

- 2.11.1 An Emergency Response Plan (ERP) will be developed in consultation with the relevant local authority emergency planning officer, emergency services including the local fire service, as well as the Environment Agency in relation to responding to flood warnings and events.
- 2.11.2 The ERP will detail the procedures for responding to incidents and emergencies on site, and any reporting.

# 2.12 Consents, Licences and Permits

2.12.1 Any additional decommissioning licences, permits or approvals that are required will be listed in the detailed DEMP(s), including any environmental information submitted in respect of them.

# 2.13 Security

2.13.1 Site security during decommissioning will be managed by the Principal Contractor. The site security fencing will remain in place throughout the duration of the decommissioning period and will be the last feature to be removed from the Scheme. Any storage of materials would be kept secure to prevent theft of vandalism. A safe system for accessing the materials storage areas would be implemented by the Principal Contractor.

# 2.14 Best Practice Measures

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

# 2.15 Retention of Landscape and Ecological Mitigation and Enhancement Measures

2.15.1 As part of the detailed DEMP, the undertaker must include a schedule setting out details of the landscape and ecological mitigation and enhancement measures that have been put in place as a result of the detailed LEMPs ('Measures') which relate to the land that is the subject of the detailed DEMP including an assessment of the landscape function and ecological interest of those measures.

#### 2.15.2 The detailed DEMP must include:

- a. a commitment that all landscape and ecological mitigation and enhancement measures mentioned in the schedule will not be removed by the undertaker at the time of decommissioning the phase of the Scheme that is the subject of the detailed DEMP;
- b. the identification in the schedule referred to above of (a) the measures that would serve a continuing landscape function after decommissioning is complete and which may benefit from long term retention; and (b) the Measures that would not serve a continuing landscape function after decommissioning is complete and which therefore would not need to be retained in the long term;
- c. the identification in the schedule referred to above of (a) the ecological measures which would serve a continuing ecological interest of at least a county scale (with reference to Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines (Ref 3)) and which may benefit from long term retention; and (b) the measures that would not serve a continuing ecological interest of at least a county scale (with reference to CIEEM guidelines) after decommissioning is complete and which therefore would not need to be retained in the long term; and
- d. in the case of measures identified in the schedule as benefiting from long term retention, the Applicant's proposals for means by which such long term retention might be secured for a period of 25 years after decommissioning is complete and, where relevant, the process for which any alterations or removal of the measures identified in the schedule for long term retention could be undertaken.
- 2.15.3 The detailed DEMP will not identify for retention any grassland planting within the areas identified for solar development.
- 2.15.4 The detailed DEMP will also be able to include the following statement:
  - a. 'It shall not be a breach of this DEMP for the owners (and their lessees, occupiers and tenants) and successors in title of the land that is the subject of this DEMP to fell, lop, or remove any:
  - i. grassland; or
  - ii. the measures identified as not needing to be retained in the long term on the land that is the subject of this DEMP.'

# 3. Mitigation and Monitoring

- 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 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 2088. 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 3-1: Air Quality** 

Potential Impact	Mitigation Measure	Monitoring Requirements	Responsibility
Increased nitrogen dioxide (NO <sub>2</sub> ) and particulate matter (PM <sub>10</sub> ) from onsite and off-site decommissioning vehicle / plant emissions  Increased particulates and deposited dust from decommissioning activities, materials transportation, storage and	Prior to decommissioning, a dust risk assessment will be prepared and a Dust Management Plan (DMP) would be agreed with the Local Authority prior to any works taking place.  Appropriate standard and best practice control measures will be included in the detailed DEMP(s), which may include, but not be limited to:  Communications  Develop and implement a stakeholder communications plan that includes community engagement before work commences on-site.  Display the name and contact details of person(s) accountable for air quality and dust issues on the Scheme. This may be the environment manager/engineer or the site manager.  Display the head or regional office contact information.  Develop and implement a DMP (which will be produced post consent), which may include measures to control other emissions, approved by the Local Authority. The DMP may include monitoring	Measures in the detailed DEMP(s) will include the implementation of:  • Undertaking 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. Road surface cleaning to be provided if necessary.  • Carrying out regular site inspections to monitor compliance with the DMP,	To be included in the detailed DEMP(s) prepared by the Principal Contractor.

# **Potential Impact**

### **Mitigation Measure**

handling, and use of haul roads.

of dust deposition, real-time  $PM_{10}$  continuous monitoring and/or visual inspections.

## **Site Management**

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.
- Hold regular liaison meetings with other high-risk decommissioning sites within 500m of the Scheme (or greater, if applicable), to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/ deliveries which might be using the same strategic road network routes.

## **Preparing and Maintaining the Site**

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as practicable.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period where decommissioning activities are within 100m of receptors.
- · Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from the Scheme as soon as practicable, unless being reused on-site. If they are being reused on-site cover as described below.

# **Monitoring Requirements**

Responsibility

- record inspection results, and make an inspection log available to the local authority when asked.
- Increasing the frequency of site inspections by the person accountable for air quality and dust issues onsite when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Agreeing approach to monitoring with the LPA ahead of works commencing. Data will be collected before any work commences on-site to provide a comparative baseline should real-time airborne particulate or dust deposition monitoring be required.

**Monitoring Requirements** 

Responsibility

# Operating vehicle/machinery and sustainable travel

- Ensure all vehicles switch off engines when stationary no idling vehicles.
- Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
- Produce a Decommissioning Traffic Management Plan to manage the sustainable delivery of goods and materials.
- Implement an integrated Travel Plan within the Traffic Management Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

## **Operations**

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water from temporary water tanks where practicable and appropriate. Opportunities for rainwater harvesting for non-potable water supply will be explored.
- 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.

**Monitoring Requirements** 

Responsibility

#### Waste

Buring of waste or unwanted materials will not be permitted on-site.

#### **Earthworks**

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- Use Hessian, mulches or tackifiers where it is not practicable to revegetate or cover with topsoil, as soon as practicable.
- Only remove the cover in small areas during work and not all at once.

#### Trackout

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
- Record all inspections of haul routes and any subsequent action in a site logbook.
- Implement temporary matt covered haul routes, which are regularly damped down with fixed or mobile sprinkler systems (sourced via water from the temporary water tanks) and regularly cleaned.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

**Monitoring Requirements** 

Responsibility

- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
- Access gates to be located at least 10m from receptors where practicable.

**Table 3-2: Climate Change** 

Potential Impact	Mitigation Measure	Monitoring Requirements	Responsibility
(GHG) emissions	Appropriate standard and best practice control measures will be included in the DEMP(s), which will include:	To be confirmed in the detailed DEMP(s).	Specific responsibilities will be
from the transportation of materials and	<ul> <li>Increasing recyclability by segregating waste to be reused and recycled where reasonably practicable;</li> </ul>		confirmed in the detailed
products at end of the Scheme's design life.	<ul> <li>Reusing suitable infrastructure and resources where practicable to minimise the use of natural resources and unnecessary materials;</li> </ul>		DEMP(s).
GHG emissions	<ul> <li>Liaising with decommissioning personnel for the potential to implement staff minibuses and car sharing options;</li> </ul>		
from the disposal and recovery of materials and components at the end of the Scheme's design life.	<ul> <li>Implementing a Travel Plan in accordance with the DTMP to reduce the volume of decommissioning workers to the Scheme, while encouraging the use of lower carbon modes of transport by identifying and communicating local bus connection and pedestrian/cycle access routes to/from the Scheme to all decommissioning staff, and providing appropriate facilities for the safe storage of cycles;</li> </ul>		
Use of natural resources.	<ul> <li>Switching vehicles and plant off when not in use and ensuring decommissioning vehicles conform to current emissions standards; and</li> </ul>		
	<ul> <li>Conducting regular planning maintenance of the decommissioning plant and machinery to optimise efficiency.</li> </ul>		
Changing climatic hazards (increased summer maximum	<ul> <li>The following measures are required to ensure safety of staff from increased flood risk on-site due to climate change:</li> <li>Topsoil and other decommissioning materials will be stored outside of the 1-in-100 year floodplain extent where feasible. If areas located within Flood Zone 2/3 are to be utilised for the</li> </ul>	To be confirmed in detailed DEMP(s).	Specific responsibilities will be confirmed in

Potential Impact Mitigation Measure		Monitoring Requirements	Responsibility
frequency and severity of storms, increased frequency and severity of heatwaves, reduced summer	storage of decommissioning materials, this would be done in accordance with the applicable flood risk activity regulation, if required;  Connectivity will be maintained between the floodplain and the adjacent watercourses, with no changes in ground levels within the floodplain as far as practicable;  During the decommissioning phase, the Principal Contractor will monitor weather forecasts on a monthly, weekly and daily basis, and plan works accordingly. For example, works in the channel of any watercourse will be avoided or halted were there to be a significant risk of high flows or flooding; and  The decommissioning laydown area site office and supervisor will be notified of any potential flood occurring by use of the Floodline Warning Direct or equivalent service.	Principal Contractor to monitor weather reports and schedule construction appropriately	the detailed DEMP(s).

## **Table 3-3: Cultural Heritage**

remains.

#### Potential Impact Mitigation Measure **Monitoring Requirements** Responsibility N/A N/A Decommissioning No previously undisturbed land will be disturbed within the Order limits will not have any to deliver the decommissioning activities. impact beyond the Activities associated with the decommissioning phases are not already disturbed considered to cause further impact to buried archaeological remains footprint of the beyond that which will occur during the construction phase. Likewise, Scheme; the decommissioning phase is not considered to cause additional therefore, it is not indirect impacts to heritage assets to those caused during the anticipated that construction or operational phases. decommissioning The detailed DEMP will be agreed with the Archaeological Advisor to activities will have the relevant Local Planning Authority prior to decommissioning, which a direct physical will be sufficient to safeguard any archaeological remains during the impact upon decommissioning phase. archaeological

## **Table 3-4: Ecology and Nature Conservation**

## **Potential Impact Mitigation Measure**

Potential disturbance of ecologically

- Any impacts from decommissioning will be mitigated fully in line with relevant legislative and policy requirements at the time of decommissioning.
- designated sites Pre-decommissioning surveys will be required to inform any mitigation and protected species licensing, as required at the time of decommissioning. The monitoring undertaken during the operational phase will help to inform the decommissioning strategy.
  - Appropriate standard and good practice control measures will be included in the detailed DEMP(s), which may include, but not be limited to:
    - The Scheme will implement standard environmental protection measures during decommissioning, such as dust suppression and pollution prevention, to ensure no indirect impacts occur.
    - Implementation of measures to avoid animals being injured or killed within decommissioning working areas, through excluding them from such areas and preventing them from falling into and becoming trapped in excavations. No excavations will remain open overnight and if excavations are required to be left open, ramps will be provided to allow animals a means of escape.
    - Existing watercourse crossing points will be used for decommissioning access, where practicable, to avoid additional watercourse crossings being required.
    - Where lighting is required, it will conform to best practice guidelines with respect to minimising light spill into habitats and temporary decommissioning lighting, in the form of mobile lighting towers with a power output of 8 kilo volt-amperes (kVAs), will be required in areas where natural lighting is unable to reach (sheltered/confined areas) and during core working hours within

# Pre-decommissioning ecological surveys will be undertaken to inform any mitigation and protected species licensing, as required DEMP(s). at the time of decommissioning.

**Monitoring Requirements** 

# responsibility will be outlined in the detailed

Responsibility

The

Monitoring requirements will be confirmed in the detailed DEMP(s).

**Monitoring Requirements** 

Responsibility

winter months but deployed in accordance with the following recommendations to prevent or reduce the impact on human and ecological receptors.

- The use of lighting will be minimised to that required for safe site operations and security;
- Lighting will be controlled by infrared settings;
- Lighting will utilise directional fittings to minimise outward light spill and glare (e.g. via the use of light hoods/cowls which direct light below the horizontal plane, preferably at an angle greater than 20° from horizontal); and
- Lighting will be directed towards the middle of the Order limits rather than towards the boundaries.

#### **Ecological Clerk of Works**

The method statements to be detailed in the DEMP would be controlled and monitored through the direction of an appointed Ecological Clerk of Works who will be present on Site during decommissioning works. The ECoW would also ensure that prearranged mitigation is undertaken, and records are kept.

Impacts on ecologically designated sites, habitats and species

- No direct impacts on designated sites (Ashton's Meadow Site of Special Scientific Interest (SSSI), Upton Grange Road Verges Local Wildlife Site (LWS), Willingham to Fillingham Road Verges LWS and Cow Pasture Lane Drains LWS and other LWS outside the Order limits), habitat degradation or species mortality are anticipated.
- All decommissioning works will be carried out in line with Wildlife and Countryside Act 1981 (or equivalent), the Natural Environment and Rural Communities Act 2006, and The Conservation of Habitats and Species Regulations 2017 (or equivalent).

Pre-decommissioning ecological surveys will be undertaken to inform any mitigation and protected species licensing, as required DEMP(s). at the time of decommissioning.

Monitoring requirements will be confirmed in the detailed DEMP(s).

The responsibility will be outlined in the detailed

- Decommissioning impacts will be mitigated fully in line with relevant legislative and policy requirements at the time of decommissioning for the following habitats:
  - Broad-leaved woodland, including Ancient woodland and Veteran trees;
  - Standing water;
  - Hedgerows;
  - Semi-improved neutral grassland (Coastal and Floodplain Grazing Marsh);
  - Running Water; and
  - Arable field margins.
- Decommissioning impacts will be mitigated fully in line with relevant legislative and policy requirements at the time of decommissioning for non-breeding and breeding birds including:
  - General breeding bird assemblages;
  - Population of Skylark within the Principal Site; and
  - Populations of specially protected species (Quail, Hobby and Barn Owl, Black Redstart and Peregrine).
- Decommissioning impacts will be mitigated fully in line with relevant legislative and policy requirements at the time of decommissioning, including retention and avoidance of habitats for the following species:
  - Badger (including Badger setts);
  - Riparian mammals (Water Vole and Otter);
  - Other mammals (Brown Hare, Hedgehog and Harvest Mouse);
  - Aquatic macrophytes and macroinvertebrates;
  - Fish:
  - Great Crested Newt;

**Monitoring Requirements** 

Responsibility

- Reptiles (Grass Snake and Common Lizard); and
- Bats.

**Table 3-5: Water Environment** 

Potential Impact	Mitigation Measure	Monitoring Requirements	Responsibility
General measures	3		
Any flooding during decommissioning could flood equipment and/materials, causing release of pollutants to nearby surface watercourses or infiltrating to groundwater.  Potential impacts on groundwater resources, including licenced and unlicenced (private) water supplies.	Standard and good practice mitigation measures will apply to the decommissioning phase. No works will be undertaken within at least 10m of all watercourses, which is considered sufficient to mitigate for potential hazards such as chemical and soils spills into watercourses and avoid potential direct impacts to the watercourse and protected species.  The Principal Contractor will comply with the following Guidance for Pollution Prevention (GPP) or the relevant guidance at the time:  GPP 1: Understanding your environmental responsibilities – good environmental practices (Ref 9);  GPP 2: Above ground oil storage (Ref 10);  GPP 3: Use and design of oil separators in surface water drainage systems (Ref 11);  GPP 4: Treatment and disposal of wastewater where there is no connection to the public foul sewer (Ref 12);  GPP 5: Works and maintenance in or near water (Ref 13);  GPP 6: Working at construction and demolition sites;  GPP 8: Safe storage and disposal of used oils (Ref 14);  GPP 13: Vehicle washing and cleaning (Ref 15);	Drainage systems will be monitored throughout decommissioning.  Water quality monitoring will be undertaken in accordance with a Water Management Plan.	Specific details will be confirmed in detailed DEMP(s).

**Monitoring Requirements** 

Responsibility

Potential impact on baseflow to watercourses from temporary dewatering of excavations or changes in hydrology.

- GPP 19: Vehicles: Service and Repair (Ref 16);
- GPP 20: Dewatering underground ducts and chambers (Ref 17);
- GPP 21: Pollution Incident Response Plans (Ref 18);
- GPP22: Dealing with spills (Ref 19); and
- GPP26: Safe storage drums and intermediate bulk containers.

Decommissioning phase operations would be carried out in accordance with guidance contained within the following Pollution Prevention Guidelines (PPGs) or the relevant guidance at the time:

- PPG7: Safe storage the safe operation of refuelling facilities (Ref 20); and
- PPG18: Managing fire water and major spillages (Ref 21).

Good practice guidance will be followed using key Construction Industry Research and Information Association (CIRIA) documents and British Standards Institute documents or the relevant guidance at the time:

- British Standards Institute (2009) BS6031:2009 Code of Practice for Earth Works (Ref 22);
- British Standards Institute (2013) BS8582 Code of Practice for Surface Water Management of Development Sites (Ref 23);
- C753 (2015) The SuDS Manual (second edition) (Ref 24);
- C811 (2023) Environmental good practice on site guide (fifth edition) (Ref 25);
- C648 (2006) Control of water pollution from linear construction projects, technical guidance (Ref 26);

Potential Impact	Mitigation Measure	Monitoring Requirements	Responsibility
	<ul> <li>C609 (2004) Sustainable Drainage Systems, hydraulic, structural and water quality advice (Ref 27);</li> <li>C532 (2001) Control of water pollution from construction sites – Guidance for consultants and Principal Contractors (Ref 28); and</li> <li>C736F Containment systems for prevention of pollution (Ref 29).</li> <li>The above guidance documents provide for the following standard and good practice measures outlined below.</li> </ul>		
Pollution of surface water due to deposition or spillage of soils, sediments, oils, fuels, or other decommissioning chemicals, or through uncontrolled site run-off including dewatering of excavations.	<ul> <li>Surface water management during decommissioning:         <ul> <li>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. The measures will accord with the principles set out in industry guidelines including the CIRIA report 'C532: Control of water pollution from construction sites' (Ref 32) and CIRIA report 'C648 Control of water pollution from linear construction sites' (Ref 33). 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.</li> <li>Foul drainage during decommissioning will be provided by self-contained cess pit (or similar sealed tank), regularly emptied by a waste management Principal Contractor.</li> <li>The relevant sections of BS 6031: Code of Practice for Earthworks (Ref 34) will be followed for the general control of site drainage.</li> </ul> </li> </ul>	Specific details will be confirmed in detailed DEMP(s).	Specific details will be confirmed in detailed DEMP(s).

- Where practical, any 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 Principal Contractor in accordance with the pollution prevention principles described in Chapter 10: Water Environment of the ES [EN010142/APP/6.1].
- 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 will not be practicable, and it is to be stockpiled for longer than a two-week period, the material will either be covered with geotextile mats, seeded to promote vegetation growth, or runoff prevented from draining to a watercourse without prior treatment.
- Appropriately sized runoff storage areas for the settlement of excessive fine particulates in runoff will be provided.
- Site runoff will either be treated on-site and discharged under a Water Discharge Activity Permit to Controlled Waters from the Environment Agency (potentially also including infiltration to ground though this is unlikely to be suitable based on the geology of the area) or to the nearest public sewer with sufficient capacity for treatment following discussions with Anglian Water, or else removed from site for disposal at an appropriate and licensed waste facility.

# **Monitoring Requirements**

# Responsibility

- Equipment and plant are to be washed out and cleaned in designated areas within the Order limits only, where runoff can be isolated for treatment before disposal as outlined above.
- Mud deposits will be controlled at entry and exit points to the Order limits using wheel washing facilities and/or road sweepers operating during earthworks activities or other times as required.
- Debris and other material will be prevented from entering surface water drainage, through maintenance of a clean and tidy site, provision of clearly labelled waste receptacles, grid covers and the presence of site security fencing.
- The Water Management Plan (WMP) (which will be produced predecommissioning) will include details of 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.

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.

Changes in flood risk due to the decommissioning of PV panels,

## Management of flood risk:

- Topsoil and other decommissioning materials will be stored outside
  of the 1 in 100 year floodplain extent where feasible. If areas located
  within Flood Zone 2/3 are to be utilised for the storage of
  decommissioning materials, this will be done in accordance with the
  applicable flood risk activity regulations, if required.
- Connectivity will be maintained between the floodplain and the adjacent watercourses, with no changes in ground levels within the floodplain as far as practicable.
- During the decommissioning phase, the Principal Contractor will monitor weather forecasts on a monthly, weekly and daily basis, and plan works accordingly. For example, works in the channel of any

Specific details will be confirmed in detailed DEMP(s).

Specific details will be confirmed in detailed DEMP(s).

**Monitoring Requirements** 

Responsibility

which may alter runoff from the site.

watercourse will be avoided or halted were there to be a significant risk of high flows or flooding.

- The decommissioning laydown area site office and supervisor will be notified of any potential flood occurring by use of the Floodline Warnings Direct or equivalent service.
- If required, a temporary decommissioning compound within the Cable Route Corridor, located east of Willingham by Stow, is proposed to be located close to the present day Flood Zone 2/3 extents associated with Fillingham Beck. It is proposed to locate all staff and operational buildings within the temporary compound above 10.7 m Above Ordnance Datum (AOD). The minimum level allows 300mm of freeboard between the current estimated Flood Zone 3 level which will ensure the temporary compound remains operational a safe during potential periods of flooding from Fillingham Beck. All remaining decommissioning compounds will be located outside of areas of fluvial flood zones 2 and 3 including allowances for climate change, where practicable.

Details of the response to an impending flood will include:

- A 24-hour availability and ability to mobilise staff in the event of a flood warning.
- The removal of all plant, machinery and material capable of being mobilised in a flood for the duration of any holiday close down period where there is a forecast risk that the site may be flooded.
- Details of the evacuation and site close down procedures.
- Arrangements for removing any potentially hazardous material and anything capable of becoming entrained in floodwaters, from the temporary works areas.

# **Monitoring Requirements**

## Responsibility

- The Principal Contractor will sign up to Environment Agency flood warning alerts and describe in the Emergency Response Plan the actions it will take in the event of a flood event occurring. These actions will be hierarchical meaning that as the risk increases the Principal Contractor will implement more stringent protection measures.
- If water is encountered during below ground decommissioning, suitable dewatering methods will be used. Any groundwater dewatering required in excess of the exemption thresholds will be undertaken in line with the requirements of the Environment Agency (under the Water Resources Act 1991 as amended) (Ref 38) and the Environmental Permitting Regulations (2016) (Ref 39) or the equivalent legislation at the time.
- 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.

Leakage or accidental spillage of decommissioning materials and potential pollutants used on-site, migrating to nearby surface watercourses or infiltrating to groundwater.

Accidental spillage within the Order limits:

- Fuel and other potentially polluting chemicals will either be in selfbunded 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).
- 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 site compounds. 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.

Specific details will be confirmed in detailed DEMP(s).

Specific details will be confirmed in detailed DEMP(s).

- All washing down of vehicles and equipment will take place in designated areas and wash water will be prevented from passing untreated into watercourses.
- All refuelling, oiling and greasing of plant will take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses, and away from drains as far as reasonably practicable. Vehicles will not be left unattended during refuelling.
- As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses.
- All fixed plant used will be self-bunded.
- Mobile plant is to be in good working order, kept clean, fitted with absorbent plant 'nappies' at all times and are to carry spill kits.
- The WMP (which will be produced pre-decommissioning) 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 Scheme and regularly topped up. All decommissioning workers will receive spill response training and tool box talks.
- The area of decommissioning will be secured to prevent any vandalism that could lead to a pollution incident.
- Waste/debris are to be prevented from entering any surface water drainage or water body.
- Surface water drains on public roads trafficked by plant or within the
  decommissioning compounds 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.

**Monitoring Requirements** 

Responsibility

- Suitable facilities for concrete wash water (e.g. geotextile wrapped sealed skip, container or earth bunded area) will be adequately contained, prevented from entering any drain, and removed from the site for appropriate disposal at a suitably licenced waste facility.
- 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.

### Table 3-6: Human Health

# Potential Impact Mitigation / Enhancement Measure

Monitoring Requirements Responsibility

Details with respect to mitigation measures relevant to human health, including minimising amenity impacts associated with Public Rights of Way (PRoW), transport and access, noise and vibration, air quality, climate change and landscape and visual amenity during the decommissioning phase are set out in the following tables: Air Quality (**Table 3-1**), Climate Change (**Table 3-2**), Landscape and Visual Amenity (**Table 3-7**), Noise and Vibration (**Table 3-8**), Socio-Economics and Land Use (**Table 3-9**), and Traffic and Transport (**Table 3-11**).

Table 3-7: Landscape and Visual Amenity

1able 3-1.	Lanuscape	allu vis	ouai Ailieility	,

Direct, physical changes to the landscape associated with the visibility of decommissioning activities on receptors

The Framework Landscape and Ecology Management Plan (LEMP) submitted alongside the DCO [EN010142/APP/7.17] sets out the measures proposed to mitigate the potential impacts and effects on landscape (and biodiversity) features, and to enhance the landscape and biodiversity value of the Order limits (i.e. the green infrastructure). Areas of habitat and biodiversity mitigation and enhancement, as well as permissive paths delivered as part of the Scheme would remain up until the land is returned to the previous landowners. Following this, the landowners would choose how the land is to be used and managed.

The following measures to minimise impacts from decommissioning works would apply.

## Screening:

• Existing vegetation along the boundary of the Scheme will be retained and managed where practicable to ensure its continued presence and to aid the screening of low-level views.

## Site Management:

 Ensuring a tidy and neat working area, covering stockpiles and storing topsoil in accordance with good practice measures as detailed in Table 3-10.

### Tree Protection:

- All decommissioning works to be in line with Wildlife and Countryside Act 1981 (or equivalent).
- Any hedgerow removal that may be required as part of decommissioning works are to be carried out in line with the

# Monitoring Requirements

To be confirmed in the DEMP(s).

Specific responsibilities will be confirmed in the DEMP(s).

Responsibility

**Monitoring Requirements** 

Responsibility

provisions in the DCO and (where applicable) the latest regulations at the time of decommissioning (currently the Hedgerow Regulations 1997 and The Management of Hedgerows (England) Regulations 2024-Draft).

- Tree works will be undertaken in accordance with Appendix 12-7:
   Arboriculture Impact Assessment of the ES [EN01042/APP/6.2].
   Should the requirement for additional tree works be identified, this will be discussed with an arboriculturist and no works will be undertaken without the prior consent of the relevant Local Planning Authority.
- Where works in close proximity to retained trees cannot be practically avoided, these works will be undertaken in accordance with current best practice, defined in British Standard (BS) 5837: 2012 Trees in relation to design, demolition and construction (Ref 44) and Recommendations and National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Ref 45); and
- All necessary protective fencing will be installed prior to the commencement of decommissioning works in accordance with an Arboricultural Method Statement, if required.

## Lighting Strategy:

 Temporary site lighting during decommissioning required to enable safe working during decommissioning in hours of darkness will be designed as far as reasonably practical so as not to cause a nuisance outside of the Order limits. Standard best practice measures will be employed to minimise light spill, including glare during decommissioning.

#### **Table 3-8: Noise and Vibration**

#### **Potential Impact Mitigation Measure**

Ground-borne vibration due to decommissioning activities potentially causing annoyance at Noise Sensitive Receptors (NSR) and damage to building structures.

Decommissioning traffic, plant and machinery noise at nearby NSR. Mitigation measures will be put into place to ensure that noise and vibration associated with the decommissioning phase is minimised at all times. Best Practicable Means (BPM) will be applied, as far as reasonably practicable, during decommissioning works to minimise noise and vibration at NSRs, including, neighbouring residential properties and other sensitive receptors arising from decommissioning activities; including, as appropriate:

- Ensuring that all appropriate processes, procedures and measures are in place to minimise noise before works begin and throughout the decommissioning programme.
- All Principal Contractors to be made familiar with current legislation and the guidance in BS 5228 (Parts 1 and 2) (Ref 35) (or relevant guidance at the time) which should form a prerequisite of their appointment.
- 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.
- Use of modern plant, complying with applicable UK noise emission requirements.
- Hydraulic techniques for breaking concrete or rocks to be used in preference to percussive techniques, where reasonably practicable.
- Drop heights of materials will be minimised.
- Plant and vehicles will be sequentially started up rather than all together.

## **Monitoring Requirements**

A decommissioning noise monitoring scheme shall be developed in the detailed DEMP.

The detailed DEMP would also set out a scheme for the provision of monthly reporting information during construction to and local residents to advise of potential noisy works that are due to take place and for monitoring of noise complaints and reporting to the Applicant for immediate investigation and action.

Noise complaints will be monitored and reported to the Applicant for immediate investigation and action. A display board will be installed on-site, and a website will be set up. These will include contact details for the Community Liaison Officer or alternative with whom

#### Responsibility

The overall responsibility will be with the Principal Contractor. Specific responsibilities will be confirmed in the detailed DEMP(s).

#### **Potential Impact Mitigation Measure**

- Off-site pre-fabrication where reasonably practicable.
- Use of screening locally around significant noise producing plant and activities.
- Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications.
- All decommissioning plant and equipment to be properly maintained, silenced where appropriate, operated to prevent excessive noise and switched off when not in use.
- Loading and unloading of vehicles, dismantling of site equipment or moving equipment or materials around the Order limits to be conducted in such a manner as to minimise noise generation, as far as reasonably practicable.
- All vehicles used on-site shall incorporate reversing warning devices as opposed to the typical tonal reversing alarms to minimise noise disturbance where reasonably practicable.
- Provision of information to the relevant local authority and local residents to advise of potential noisy works that are due to take place.
- Unnecessary revving of engines will be avoided, and equipment will be switched off when not in use.
- Plant will always be used in accordance with manufacturers' instructions. Care will be taken to site equipment away from noisesensitive areas. Where practicable, loading and unloading will also be carried out away from such areas.

### **Monitoring Requirements**

Responsibility

nuisance or complaints can be lodged. A logbook of complaints will be prepared and managed by the Site Manager.

Section 61 consents (or equivalent at the time of the works) would be obtained where noisy works are anticipated by the appointed Principal Contractor or work outside of core hours is required. The Section 61 consent would form the basis of noise limits and monitoring requirements including monitoring locations, noise monitoring methods and frequency, and the noise control measures to be employed.

Potential Impact	Mitigation Measure	Monitoring Requirements	Responsibility
	The effect of noise and vibration on nearby sensitive receptors can be minimised through a good communication strategy. Prior to decommissioning works being undertaken, liaison will be undertaken with occupiers of sensitive receptors that may be adversely affected by construction noise and vibration.		
	Standard working hours		
	The majority of works activities will be completed under core working hours:		
	<ul> <li>Monday to Friday: 07:00 – 19:00;</li> </ul>		
	<ul> <li>Saturday: 07:00 – 13:00; and</li> </ul>		
	<ul> <li>Sundays and Bank Holidays: No works.</li> </ul>		
	Where work outside of times is necessary, prior notification will be provided to the LPA, in the form of a CoPA (Ref 40) Section 61 consent application where necessary (or equivalent at the time of decommissioning).		
Impacts from increase in traffic	Consideration will be given to traffic routing, timing and access points to the Scheme in the Decommissioning Traffic Management Plan (DTMP). Scheduling of decommissioning traffic from different work	The detailed DTMP(s) will provide any monitoring required.	This will be outlined in the detailed

teams will be undertaken to avoid overlap of route usage to minimise

noise impacts at existing receptors.

DTMP(s).

Table 3-9: Socio-Economics and Land Use

Potential Impact	Mitigation Measure	Monitoring Requirements	Responsibility
Disruption to local residents, businesses and community facilities.  Amenity impacts on sensitive receptors during the decommissioning	During the decommissioning phase, there are not expected to be any PRoW closures although some minor diversions are likely to be equired to provide safe access across the Order limits whilst decommissioning activities are taking place as set out within the Framework PRoW Management Plan submitted alongside the Application [EN010142/APP/7.16]. These diversions will be emporary and expected to be for a short duration. Detailed DEMP(swill confirm PRoWs affected and management measures in consultation with the LPA.	As set out in Air Quality (Table 3-1), Noise and Vibration (Table 3-8) Transport and Access (Table 3-11) and Landscape and Visual Amenity (Table 3-7) of this Framework DEMP.	(Table 3-8)
phase (such as noise, air quality, transport and landscape).	Mitigation and management measures during decommissioning are covered in the following tables: Air Quality ( <b>Table 3-1</b> ), Noise and Vibration ( <b>Table 3-8</b> ) Transport and Access ( <b>Table 3-11</b> ) and		Visual Amenity ( <b>Table 3-7</b> ) of this Framework DEMP.
Disruption or severance to communities and PRoW resulting from decommissioning	Landscape and Visual Amenity ( <b>Table 3-7</b> ). <u>Support for workforce to be directed to primary healthcare facilities with greatest capacity.</u>		

activity.

**Table 3-10: Soils and Agriculture** 

handling.

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Potential loss of soil resource.	The <b>Framework Soil Management Plan</b> submitted alongside the DCO application <b>[EN010142/APP/7.12]</b> details the threats to soil resource during the decommissioning phase. Full details will be provided in the detailed SMP which will be secured by a DCO Requirement.	As detailed in the <b>Framework Soil Management Plan</b> submitted alongside the DCO	The overall responsibility will be with the Principal Contractor. Specific responsibilities will be confirmed in the DEMP(s).
Potential for surface soil		application [EN010142/APP/7.12].	
compaction in some areas through trafficking of vehicles/plant and poor		Post-restoration survey of agricultural land.	

**Table 3-11: Transport and Access** 

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Increased severance, congestion, fear and intimidation to pedestrians and cyclists associated with the increase in HGV and LGV movements.	A Decommissioning Traffic Management Plan (DTMP) will be developed by the Principal Contractor prior to decommissioning in consultation with the LPAs. This will include a Decommissioning Worker Travel Plan (DWTP) to utilise sustainable modes of transport for journeys to and from the site. Both the DTMP and DWTP will use, as their starting point, the measures detailed in <b>Framework CTMP</b> submitted alongside the DCO application <b>[EN010142/APP/7.11]</b> updated to reflect the circumstances prevailing during the period in which decommissioning is to be carried out.	There will be monitoring of HGVs, staff vehicles travelling to and from the Order limits, together with safety monitoring at specific locations, which will be detailed in the DTMP.	The overall responsibility will be with the Principal Contractor. Specific responsibilities will be confirmed in the DTMP.
Disruption to the surrounding highway network associated with Abnormal Indivisible Loads (AILs).	During the decommissioning phase, there are not expected to be any PRoW closures although some minor diversions are likely to be required to provide safe access across the Order limits whilst decommissioning activities are taking place. These diversions will be temporary and expected to be for a short duration. Detailed DEMP(s) will confirm PRoWs affected and management measures in consultation with the LPA.		
Increased congestion and driver delay due to travel to and from the Scheme by decommissioning staff.  Increase in delay to vehicles,	Interrelationship with other National Infrastructure Projects		

**Monitoring Requirements** 

Responsibility

pedestrians, cyclists and equestrians due vehicle movements and are known. a reduction in pedestrian/ cycle amenity.

services to transport decommissioning staff to/ from multiple sites, sharing decommissioning compounds to consolidate trips or sharing access points to remove cabling in the Cable Route to an increase in Corridor, if required. Final details will be set out within the detailed DTMP once further details in relation to the other solar schemes

Change in route connections and amenity for pedestrians, cyclists and equestrians due to the Scheme.

#### **Table 3-12: Ground Conditions**

health associated with inhalation, ingestion or contact with made around or groundwater contaminated by metal, inorganic and organic chemicals.

Hazards to controlled waters associated with leaching of contaminants from soils, lateral groundwater migration, or contaminated discharge to watercourses or made ground or groundwater.

Hazards to ecological

Hazards to human Best practice avoidance and mitigation measures proposed include:

- Workers to adhere to health, safety and environmental precautions to reduce the potential for any accidents and incidents. Workers to be made aware of the risks and the necessary precautions to take to minimise pollution.
- All workers would be required to wear Personal Protective Equipment (PPE) including gloves and, where appropriate, dust masks, use of ground gas monitoring equipment and hygiene facilities:
- Use of appropriate site control measures to minimise the migration of contaminated dusts and soils from the site to adjacent areas;
- Fuels and chemicals to be stored appropriately within a secure, impervious bund (110% volume of container). Spill kits and Spill Response Plans to be developed and implemented.
- Equipment to be regularly maintained to prevent leaks, with refueling activities undertaken on impermeable surfaces and biodegradable oils prioritised in sensitive areas.
- All plant and machinery will be kept away from surface water bodies wherever possible. Vehicles will be well maintained to prevent accidental pollution from leaks. Static machinery and plant will include drip trays beneath oil tanks/engines/gearboxes/hydraulics, which will be checked and emptied regularly via a licensed waste operator. Refuelling and delivery areas will be located away from surface water drains;
- An emergency spillage action plan will be produced, which all site staff will have read and understood, and provisions made to contain

## **Monitoring Requirements**

Responsibility

To be included in the detailed. To be included DEMP(s).

in the detailed DEMP(s).

Monitoring Requirements R

Responsibility

receptors
associated with
chemical
contaminants in
made ground and
groundwater,
discharge to
watercourses,
sedimentation /
dust deposition,
physical damage
to habitat, and
increased human
disturbance during
decommissioning.

Contamination of ground gas to any on-site buildings.

any leak/spill. Information regarding spill prevention and disposal of Control of Substances Hazardous to Health (COSHH) items will be provided as part of the standard site induction presentations and during regular toolbox talks and as the works progress; Environment Agency to be notified in the event of any suspected pollution incidents:

- Workers will remain vigilant of ground conditions at all times and will report to the Principal Contractor any suspect areas of potential contamination;
- A 'Discovery Strategy' protocol to be enforced, ensuring any discovered contamination during decommissioning will be addressed and managed by a land contamination specialist.
- Should any potentially contaminated ground, including isolated 'hotspots' of contamination and/or potential deposits of asbestos containing materials (ACM), be encountered, the Principal Contractor will be required to investigate the areas and assess the need for containment or disposal of the material. Advice should be sought from an environmental specialist should materials suspected of being contaminated be found. The Principal Contractor will also be required to assess whether any additional health and safety measures are required;
- To further minimise the risks of contaminants being transferred and contaminating other soils or water, decommissioning workers will be briefed as to the possibility of the presence of such materials;
- In the event that contamination is identified, appropriate remediation measures will be taken to protect decommissioning workers, future site users, water resources, structures and services;
- The Principal Contractor will be required to place arisings and temporary stockpiles away from watercourses and drainage

**Monitoring Requirements** 

Responsibility

systems, whilst surface water will be directed away from stockpiles to prevent erosion;

- Stockpiles and material handling areas will be kept as clean as practicable to avoid nuisance from dust. Dusty materials will be dampened down using water sprays in dry weather or covered;
- The length of time materials are stockpiled on-site before being removed for reuse, recycling or disposal is to be kept to a minimum and stockpiles are to be covered with tarpaulins prior to disposal;
- Dust generating equipment e.g. mobile crushing and screening equipment will be located to minimise potential nuisance impacts to receptors, as far as practicable;
- The risk to surface water and groundwater from run-off from any contaminated stockpiles during decommissioning works will be reduced by implementing suitable measures to minimise rainwater infiltration and/or capture runoff and leachates, through use of bunding and/or temporary drainage systems. These mitigation measures will be designed in line with current good practice, follow appropriate guidelines and all relevant licences/permits;
- The Principal Contractor will ensure that all material is suitable for its proposed use and will not result in an increase in contaminationrelated risks on identified receptors, including any landscaped areas and underlying groundwater;
- Any waters removed from excavations by dewatering will be discharged appropriately, subject to the relevant permits being obtained from the Environment Agency;
- The Principal Contractor will implement a dust suppression/management system in order to control the potential risk from airborne contamination migrating off-site to adjacent sites;

**Monitoring Requirements** 

Responsibility

- Complaints about dust will be investigated at the earliest opportunity and appropriate action taken to control the source or remedy the impact as appropriate;
- Access roads will be regularly cleaned and damped down with water;
- All vehicles entering and leaving the site during the works will pass through a wheel washing facility. Vehicles used to transport materials and aggregates will be enclosed or covered in a tarpaulin. Vehicle movements will be kept to a minimum and vehicle speeds within the site will be limited.

#### **Table 3-13: Major Accidents and Disasters**

#### Potential Impact Mitigation / Enhancement Measure

Monitoring Requirements Responsibility

All works will be undertaken in accordance with relevant Health and Safety legislation and guidance. Details of police, emergency services and hospitals will be publicised and included in the site induction. Details of managing the risk of fire are outlined in the **Framework**Battery Safety Management Plan submitted alongside this DCO application [EN010142/APP/7.13].

The relevant risk assessments for safety during decommissioning will be required and produced by the Principal Contractor prior to decommissioning, which will be implemented to minimise the risk of accidents and disasters on-site.

Table 3-14: Telecommunications, Television Reception and Utilities

Potential Impact	Mitigation / Enhancement Measure	Monitoring Requirements	Responsibility
Potential interference with existing utility infrastructure above and below ground caused as a result of decommissioning works	Measures to minimise the risk of damage to utilities during decommissioning will involve:	No monitoring required.	To be included in the detailed DEMP(s).
	<ul> <li>The use of ground penetrating radar or other appropriate techniques will be employed before excavation to identify any unknown utilities.</li> </ul>		DEIVII (5).
	<ul> <li>Consultation and agreement of decommissioning/demobilisation methods will be undertaken prior to works commencing.</li> </ul>		
	• Infrastructure that crosses the Scheme will be mapped and avoided through the design.		

Table 3-15: Materials and Waste

The creation of waste during decommissioning.

Potential for waste to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately.

To reduce the potential impacts from materials and waste, and to achieve high levels of sustainability in the Scheme as a whole, the Principal Contractor will apply the principles of the waste hierarchy and adopt best practice measures which go beyond statutory compliance. This may include best practice measures set out in industry guidance for example, guidance from the Considerate Constructors Scheme (CCS), Waste & Resources Action Programme (WRAP) and CIRIA (or equivalent guidance at the time of decommissioning). The following approaches will be implemented, where practicable, to minimise the quantity of waste arising and requiring disposal:

- Off-site reuse, recycling and recovery of materials and waste, e.g. through use of an off-site waste segregation or treatment facility or for direct reuse or reprocessing off-site. Use of organisations around the UK and Europe specialising in solar recycling, such as PV Cycle and the European Recycling Platform, will be considered. In addition, companies like SECONDSOL offer a marketplace service for the purchase and selling of second hand PV panels and equipment, where there is still a good level of life in the equipment remaining. Panels that have developed faults or damage can also be refurbished and repowered by specialist companies and the manufacturers and resold or reinstalled. Industry best practice outlined in Solar Power Europe's Lifecycle Quality Best Practice Guidance (Ref 31) or equivalent at the time of decommissioning will be followed.
- Investigate opportunities for rainwater harvesting for non-potable water supply.

### **Monitoring Requirements**

The types, quantities and final destination of waste generated during the decommissioning phase would be identified, measured and recorded through the DRMP.

A register of all waste loads leaving the Order limits will be maintained to provide a suitable audit trail for compliance purposes and to facilitate monitoring and reporting of waste types, quantities and management methods.

### Responsibility

The overall responsibility will be with the Principal Contractor. Specific responsibilities will be confirmed in the detailed DEMP.

**Monitoring Requirements** 

Responsibility

- Reuse of materials on-site wherever feasible, e.g. reuse of any excavated soil.
- Excavated material reuse will be in accordance with the CL:AIRE Code of Practice, an Environmental Permit or exemption.

The Principal Contractor will implement the following waste management measures, where practicable, to minimise the likelihood of any localised impacts from pollution or nuisance from waste on the surrounding environment:

- 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;
- Burning of waste or unwanted materials will not be permitted onsite;
- 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;
- All decommissioning workers will be required to use appropriate personal protective equipment whilst performing activities on-site;
- Any waste effluent will be tested and, where necessary, disposed of at a correctly licensed facility by a licensed specialist Principal Contractor/s; and
- Materials requiring removal from the site will be transported using licensed carriers and records will be kept detailing the types and quantities of waste moved, and the destinations of this waste, in accordance with the relevant regulations.

The DEMP will set the following target:

**Monitoring Requirements** 

Responsibility

Achieving 70% (by weight) for recovery (diversion from landfill) of non-hazardous construction and demolition waste. The target specifically excludes naturally occurring materials in accordance with EWC Code 17 05 04 (soil and stones other than those mentioned in 17 05 03\* (soils and stones containing dangerous substances)). Recovery is deemed to include reuse, recycling and other recovery e.g. energy recovery.

A Decommissioning Resource Management Plan (DRMP) (also referred to as a Site Waste Management Plan) will be developed by the Principal Contractor to set out:

- The waste streams that will be generated;
- How the waste hierarchy will be applied to these wastes;
- Good practice measures for managing waste;
- Roles and responsibilities for waste management; and
- The following will be documented as a total amount and split by year:
  - Tonnage of each type of waste(s);
  - Whether any of the identified waste type(s) have specific status
     e.g. hazardous;
  - Preferred fate for each waste type of waste e.g. reuse, including how they have considered the waste hierarchy;
  - Hierarchy of backup plan(s) if proposed fate is not available e.g. recycling;
  - 'Worst case' fate e.g. landfill; and
  - Proposed destination (inclusive of the host Waste Planning Authority) of each type of waste, including if this differs depending on 'fate'.

# 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 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 the DEMP(s) and cross referenced. As set out in sections above, these will include (but not be limited to):
  - a. Emergency Response Plan;
  - b. Dust Management Plan;
  - c. Water Management Plan;
  - d. Decommissioning Traffic Management Plan;
  - e. Decommissioning Resource Management Plan; and
  - f. Framework Battery Safety Management Plan.

## 5. Implementation and Operation

- 5.1.1 The 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;
  - 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 DEMP(s), environmental monitoring of the Scheme and its impacts will be undertaken throughout the decommissioning phase. Monitoring requirements will be detailed in the DEMP(s).
- 6.1.2 As part of the monitoring process, the Principal Contractor will allocate a designated Environmental Manager, who will be present on site throughout the decommissioning phase and when new activities are commencing. The Environmental Manager will observe site activities and report any deviations from the DEMP(s), along with the action taken and general conditions at the time. The Applicant will be informed of any deviations from the DEMP(s) as soon as possible following identification of such issues. The Environmental Manager will also act as day-to-day contact with relevant local authorities and other regulatory agencies, such as the Environment Agency.
- 6.1.3 During decommissioning, the Environmental Manager will conduct walkover surveys to ensure all requirements of the DEMP(s) are being met. Action from these surveys will be documented on an Environmental Action Schedule, discussed with the Site Manager for programming requirements and issued weekly for actioning.
- 6.1.4 The Environmental Manager will arrange regular formal inspections to ensure the requirements of the DEMP(s). After completion of the works, the Environmental Manager will conduct a final review.

## 6.2 Records

- 6.2.1 The Environmental Manager / Project Manager will retain records of environmental monitoring and implementation of the DEMP(s). This will allow provision of evidence that the DEMP(s) is being implemented effectively. These records will include:
  - a. Environmental Action Schedule;
  - b. Licenses and approvals;
  - c. Results of inspections by Environmental Manager / Project Manager;
  - d. Other environmental surveys and investigations; and
  - e. Environmental equipment test records.
- 6.2.2 The DEMP(s) 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 DEMP(s) and the corrective actions taken.

# 6.3 Management Review

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

## 7. References

- Ref 1 HMSO (2008) The Planning Act 2008, Available at: <a href="https://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga-20080029-en.pdf">https://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga-20080029-en.pdf</a> [Accessed 13/03/2024]
- Ref 2 HMSO (2017). The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017). Available at:

  <a href="https://www.legislation.gov.uk/uksi/2017/572/contents/made">https://www.legislation.gov.uk/uksi/2017/572/contents/made</a> [Accessed 27/03/2024]</a>
- Ref 3 CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.
- Ref 4 HMSO (1974). Control of Pollution Act 1974. Available at <a href="https://www.legislation.gov.uk/ukpga/1974/40">https://www.legislation.gov.uk/ukpga/1974/40</a> [Accessed 13/03/2024]
- Ref 5 HMSO (2005). The Hazardous Waste (England and Wales) Regulations 2005. Available at <a href="https://www.legislation.gov.uk/uksi/2005/894/contents/made">https://www.legislation.gov.uk/uksi/2005/894/contents/made</a> [Accessed 13/03/2024]
- Ref 6 HMSO (2011). The Waste (England and Wales) Regulations 2011. Available at: <a href="https://www.legislation.gov.uk/uksi/2011/988/contents/made">https://www.legislation.gov.uk/uksi/2011/988/contents/made</a> [Accessed 13/03/2024]
- Ref 7 HMSO (2013). Waste Electrical and Electronic Equipment (WEEE) Regulations 2013. Available at <a href="https://www.legislation.gov.uk/uksi/2013/3113/contents/made">https://www.legislation.gov.uk/uksi/2013/3113/contents/made</a> [Accessed 13/03/2024]
- Ref 8 HMSO (2008). The Planning Act 2008. Available at [Accessed 13/03/2024]https://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga 20080 029 en.pdf [Accessed 13/03/2024]
- Ref 9 Northern Ireland Environment Agency (NIEA) (2021). Understanding your environmental responsibilities good environmental practices: GPP 1.
- Ref 10 NIEA (2021). Above ground oil storage tanks: GPP 2.
- Ref 11 NIEA (2022). Use and design of oil separators in surface water drainage systems: GPP 3.
- Ref 12 NIEA (2017). Treatment and disposal of wastewater where there is no connection to the public foul sewer: GPP 4.
- Ref 13 NIEA (2018). Works and maintenance in or near water: GPP 5.
- Ref 14 NIEA (2021). Safe storage and disposal of used oils: GPP 8.
- Ref 15 NIEA (2021). Vehicle Washing and Cleaning: GPP 13.
- Ref 16 NIEA (2021). Vehicle: Servicing and Repairs: GPP 19.
- Ref 17 NIEA (2021). Dewatering underground ducts and chambers: GPP 20.
- Ref 18 NIEA (2021). Pollution incident response planning: GPP 21.
- Ref 19 NIEA (2018). Dealing with spills: GPP 22.
- Ref 20 EA (2011). The safe operation of refuelling facilities: PPG 7.
- Ref 21 EA (n.d.). Managing Fire Water and Major Spillages: PPG 18.
- Ref 22 BSI (2009). BS6031:2009 Code of Practice for Earth Works.
- Ref 23 BSI (2013). BS8582 Code of Practice for Surface Water Management of Development Sites.
- Ref 24 Construction Industry Research and Information Association (CIRIA) (2015). C753: the SuDS Manual (second edition).
- Ref 25 CIRIA (2023). C811 Environmental good practice on site guide (fifth edition).

- Ref 26 CIRIA (2006). C648: Control of water pollution from linear construction projects, technical guidance.
- Ref 27 CIRIA (2004). C609: Sustainable Drainage Systems, hydraulic, structural and water quality advice.
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- Ref 30 NIEA (2021). Safe Storage of Drums and Intermediate Bulk Containers (IBCs): GPP 26.
- Ref 31 Solar Power Europe (2021). Lifecycle Quality Best Practice Guidance. Version 1.0.
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- Ref 33 CIRIA C648 (2006). Control of water pollution from linear construction projects, technical guidance.
- Ref 34 BSI (2009). BS6031: 2009 Code of Practice for Earth Works.
- Ref 35 BSI (2014). Code of practice for noise and vibration control on construction and open sites Part 1: Noise and Part 2: Vibration.
- Ref 36 The Control of Substances Hazardous to Health (Amendment) Regulations 2004. <a href="https://www.legislation.gov.uk/uksi/2004/3386/contents">https://www.legislation.gov.uk/uksi/2004/3386/contents</a> [Accessed 29 February 2024]
- Ref 37 Control of Pollution (Oil Storage) (England) Regulations 2001.

  <a href="https://www.legislation.gov.uk/uksi/2001/2954/contents">https://www.legislation.gov.uk/uksi/2001/2954/contents</a> [Accessed 29 February 2024]
- Ref 38 The Water Resources Act (Amendment) (England and Wales) Regulations 2009. Available at <a href="https://www.legislation.gov.uk/uksi/2009/3104/contents/made">https://www.legislation.gov.uk/uksi/2009/3104/contents/made</a> [Accessed 13/04/2024]
- Ref 39 The Environmental Permitting (England and Wales) Regulations 2016
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- Ref 44 BSI (2012). BS 5837:2012 Trees in Relation to Design, Demolition and Construction.
- Ref 45 The National Joint Utilities Group (NJUG) (2007). Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.