

Byers Gill Solar
EN010139

6.4.2.7 Environmental Statement

Appendix 2.7 Outline

Decommissioning Environmental Management Plan

Planning Act 2008

APFP Regulation 5(2)(a)

Infrastructure Planning (Applications: Prescribed Forms
and Procedure) Regulations 2009

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1. Introduction

1.1. Purpose of the report

- 1.1.1. This document provides the Outline Decommissioning Environmental Management Plan (DEMP) for the decommissioning of Byers Gill Solar (the Proposed Development). RWE (the Applicant) has prepared this document as part of an application for a Development Consent Order (DCO) for the construction, operation and decommissioning of the Proposed Development. It demonstrates how the mitigation measures and monitoring requirements identified in the Environmental Impact Assessment (EIA) process will be implemented during decommissioning and has been prepared with the objective of compliance with the relevant legislation.
- 1.1.2. An EIA has been undertaken for the Proposed Development and an Environmental Statement (ES) (Volume 6 of the DCO application) has been prepared in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations). In accordance with the requirements of the EIA Regulations, the ES contains the assessment of the likely significant effects on the environment that may be caused during construction of the Proposed Development and describes proposed mitigation measures.
- 1.1.3. As outlined in the ES Chapter 2 The Proposed Development (Document Reference 6.2.2), the operational life of the Proposed Development is anticipated to be 40 years. Once the Proposed Development ceases to operate, it will be decommissioned. Prior to commencing decommissioning, a DEMP will be produced by the Principal Contractor (PC) for the Proposed Development. The DEMP will be prepared in accordance with the Outline DEMP under requirement 5 of the draft DCO (Document Reference 3.1) and any relevant engagement undertaken with stakeholders.
- 1.1.4. This Outline DEMP provides the likely structure of the DEMP and mitigation and other controls which may be included within the DEMP as a minimum to deliver the decommissioning phase of the Proposed Development. This Outline DEMP also sets out the monitoring activities designed to ensure that such mitigation measures are carried out, and that they are effective.
- 1.1.5. A number of complementary plans have also been produced to support the decommissioning of the Proposed Development and these are listed in Table 1-1
- 1.1.6. These will be further updated and developed alongside the DEMP and cross referenced where appropriate. This document does not address construction or operational activities, which are subject to separate environmental management plans and procedures as listed in Table 1-1

Table 1-1 Decommissioning specific management plans to support the DCO application

Management Plan	Purpose	Document reference
Landscape and Ecological Management Plan (LEMP)	Sets out the management of the landscape and ecological features of the Proposed Development.	ES Appendix 2.14 (Document Reference 6.4.2.14)
Outline Public Rights of Way (PRoW) Management Plan	Sets out how PRoWs would be managed to ensure they remain safe to use, and disruption to users of the PRoW is minimised.	ES Appendix 2.15 (Document Reference 6.4.2.15)
Arboricultural Impact Assessment (AIA)	Sets out the protection measures to be implemented during the construction phase, including activity supervision by a suitably qualified arboriculturist where appropriate.	ES Appendix 7.7 (Document Reference 6.4.7.7)
Outline Decommissioning Environmental Management Plan (DEMP) (this document)	Sets out how negative environmental impacts will be minimised decommissioning.	ES Appendix 2.7 (Document Reference 6.4.2.7)

1.2. Structure of the Outline DEMP

1.2.1. The Outline DEMP is structured as follows:

- Introduction: this section provides an introduction and overview to this document.
- The Proposed Development: this section provides a summary of the Proposed Development, including likely decommissioning activities, programme and standard management measures.
- Project team roles and responsibilities: this section defines the roles which the PC will identify within the DEMP to deliver the environmental commitments and stakeholders to be engaged;
- Management and mitigation measures: this section identifies the environmental mitigation and management measures required to address the environmental effects of the works during decommissioning and how these will feed into the DEMP; and
- Maintenance and monitoring activities: this section provides procedures for monitoring and reviewing compliance with the DEMP and procedures for rectification of breaching or failings of DEMP measures.

2. The Proposed Development

2.1. Description of the Proposed Development

- 2.1.1. The Proposed Development is a renewable energy scheme, covering an area of approximately 490 hectares (ha), and comprising solar photovoltaic (PV) panels, on-site Battery Energy Storage Systems (BESS), associated infrastructure as well as underground cable connections between panel areas and to connect to the existing National Grid Substation at Norton. The Proposed Development will have the capacity to generate over 50 Megawatts (MW) of electricity. The Proposed Development is located in the north-east of England.
- 2.1.2. A full description of the Proposed Development and a detailed description of the design and environmental mitigation is provided in ES Chapter 2 The Proposed Development (Document Reference 6.2.2).

2.2. Proposed Development Location

- 2.2.1. The majority of the Proposed Development, including the panel areas, substation and on-site BESS are located within the administrative area of Darlington Borough Council. The eastern part of the cable routes crosses into the administrative area of Stockton-on-Tees Borough Council. The northern extent of the planning boundary (the Order Limits) borders Durham County Council's administrative area.
- 2.2.2. The Order Limits and surroundings are comprised of agricultural fields, interspersed with individual trees, hedgerows, farm access tracks, woodlands and local farmholdings. There are several local villages located within close proximity to the Proposed Development, including Brafferton, Newton Ketton, Great Stainton, Bishopton and Old Stillington village to the north.
- 2.2.3. The Order Limits for the Proposed Development are shown in ES Figure 1.1 Location Plan (Document Reference 6.3.1.1).

2.3. Decommissioning activities

- 2.3.1. The process of decommissioning would involve the removal of all solar infrastructure from the site, including the solar PV modules, cabling within the Panel Areas and on-site supporting equipment, to be recycled or disposed of in accordance with good practice and processes at that time. Any requirements to leave certain infrastructure, for example the access tracks, would be discussed and agreed with landowners as part of the decommissioning process.
- 2.3.2. The 132kV cables from the Proposed Development to the National Grid substation at Norton will remain in situ following decommissioning, unless any legislation at the time requires otherwise.

- 2.3.3. Land within the Order Limits would be returned to its original use as far as possible and practical with areas of established mitigation left in situ where possible and in agreement with the landowner.
- 2.3.4. In addition, up to 99% of materials in a solar PV module are recyclable, with organisations around the UK specialising in solar panel recycling in line with the Waste Electrical and Electronic Equipment Regulations 2013 (the WEEE Regulations). For further information, see ES Appendix 2.3 Assessment of Likely Waste Arisings (Document Reference 6.4.2.3).
- 2.3.5. The effects of decommissioning are similar to, or often of a lesser magnitude, than construction effects. These are considered in the relevant sections of the ES. However, there can be a high degree of uncertainty regarding decommissioning as engineering approaches and technologies are likely to change over the operational life of the Proposed Development. More details on the decommissioning activities and methods will be provided within the DEMP in line with relevant standards at the time, and consultation with the local planning authorities, prior to decommissioning commencing.

2.4. Decommissioning programme

- 2.4.1. It has been assumed that the Proposed Development has a 40-year operational lifespan as secured via requirement 5 of the draft DCO (Document Reference 3.1), in which it is stated that decommissioning is to commence no later than 40 years following the date of final commissioning of the first phase of Work No.1. As such, the Proposed Development will be decommissioned after 40 years of operation.
- 2.4.2. Decommissioning is expected to take between of 6 to 12 months and could be undertaken in phases.
- 2.4.3. More details on the decommissioning phasing will be provided within the DEMP, prior to decommissioning commencing.

2.5. Working Hours

- 2.5.1. Working hours during the decommissioning phase would be between 08.00-18.00 Monday to Friday, 08.00-14.00 Saturday with no activities on Sunday or Bank/Public Holidays. Compliance with these working hours is secured via requirement 15 of the draft DCO (Document Reference 3.1).
- 2.5.2. Where on-site works are to be conducted outside the core working hours, under the exceptions that are specified in requirement 15, they will comply with the limits and controls detailed in the CEMP, and any other restrictions agreed with the relevant planning authorities.

2.6. Traffic management

- 2.6.1. During decommissioning, the PC 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. Requirements will be agreed with the local authority at the time of decommissioning.

2.7. Control of noise

- 2.7.1. Applications for Section 61 consents, variations and dispensations under the Control of Pollution Act 1974 (COPA), or equivalent process at the time if this process has been superseded, will be submitted to the relevant local planning authority for decommissioning activities.

2.8. Control of light

- 2.8.1. Temporary site lighting, in the form of mobile lighting towers will be required in areas where natural lighting is unable to reach (sheltered/confined areas) and during core working hours within winter months. Artificial lighting would be provided to maintain sufficient security and health and safety for the decommissioning areas, whilst adopting mitigation principles to avoid excessive glare and minimise spill of light to nearby receptors (including ecology and residential properties).
- 2.8.2. All decommissioning lighting will be deployed in accordance with the following recommendations to prevent or reduce the impact on human and ecological receptors:
- Lighting will conform to best practice guidelines with respect to minimising light spill into adjacent habitats and prevent disturbance to bats and other species;
 - the use of lighting will be minimised to that required for safe site operations. Infrared, movement sensor security lighting would be used at night. Lighting would be available for emergencies;
 - 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 decommissioning area rather than towards the boundaries.

2.9. Control of dust

- 2.9.1. Demolition impacts from dust generating activities will be minimised through the use of best practice guidance and measures relevant at the time of decommissioning.

2.10. Waste management

- 2.10.1. Waste from the decommissioning of the Proposed Development would be disposed of responsibly and undertaken in alignment with the future principles of recycling available at that time.

- 2.10.2. Prior to the decommissioning works commencing requirements for the management of waste will be agreed with the relevant local planning authority.
- 2.10.3. All waste to be removed from the Order Limits will be undertaken by fully licensed waste carriers and taken to licensed waste facilities for recycling or disposal.

2.11. Site security

- 2.11.1. Site security during decommissioning will be managed by the PC. 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 Proposed Development. Any storage of materials would be kept secure to prevent theft or vandalism. A safe system for accessing the materials storage areas would be implemented by the contractor.

2.12. Emergency preparedness

- 2.12.1. Emergency planning 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.
- 2.12.2. The DEMP will detail the procedures for responding to incidents and emergencies on site, and any reporting.

2.13. Best practice measures

- 2.13.1. The Considerate Constructors Scheme (CCS) [4]), or equivalent process at the time if this process has been superseded, will be adopted to assist in reducing pollution and nuisance from the decommissioning of the Proposed Development, by employing best practice measures which go beyond statutory compliance, where relevant to decommissioning.

3. Roles and Responsibilities

3.1. Site roles and responsibilities

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

- Site Manager – overall responsibility for activity onsite, and will be based onsite full time;
- Decommissioning Project Manager - overall responsibility for ensuring all elements in the DCO, DEMP and all environmental legal and other requirements are implemented, and appropriately resourced, managed, reviewed and reported;
- Environmental 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 Environmental Manager will oversee environmental monitoring onsite and carry out regular environmental site inspections, reporting and responding to any incidents or non-compliance. The Environmental Manager will liaise with the local planning authorities and the Environment Agency, as required;
- Environmental Clerk of Works – oversee the management of, and provide advice about, environmental and ecological risks during decommissioning including for example, management of protected species, surface water management, pollution, air quality and noise.
- Ecological Clerk of Works (ECoW) - management of the risks to ecological features on decommissioning sites, advising on protecting valued ecological features and providing practical solutions in line with the DEMP;
- Flood Warden – there will be a dedicated responsibility to be prepared for, and manage, the response to flood incidents; and
- Health and Safety Manager – responsible for the monitoring and controlling of health and safety compliance and related rules and regulations on-site.
- Community Liaison Officer – a Community Liaison Group will be set up in accordance with the relevant DCO requirement prior to decommissioning and will continue through until decommissioning is complete, 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.

3.1.2. These roles and responsibilities are indicative and will be confirmed in the DEMP.

3.2. Stakeholders

3.2.1. There are several key stakeholders who will be engaged prior to and during decommissioning of the Proposed Development. These include:

- Darlington Borough Council, Stockton-on-Tees Borough Council and Durham County Council;
- Environment Agency;
- Historic England; and
- Natural England.

4. Management and Mitigation Measures

- 4.1.1. The outline mitigation and management measures to be included as a minimum within the DEMP are set out within the following tables using information presented in the ES and recommended as good practice environmental management for each topic included in the EIA. The measures are secured via the DCO, and must be integrated into the DEMP prior to decommissioning by the PC.

Table 4-1 Mitigation and management measures for decommissioning – Climate change

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Release of GHG emissions during decommissioning	CC1 - DEMP	Increasing recyclability by segregating decommissioning waste to be re-used and recycled where reasonably practicable.	ES Chapter 2 The Proposed Development Section 2.6 / Chapter 5 Climate Change Section 5.9	Regularly record compliance via an appropriate method to be determined in the DEMP. The DEMP will detail the frequency.	The overall responsibility will be with the Principal Contractor (PC). Specific responsibilities will be confirmed in the DEMP, expected to include the Environmental Manager, Flood Warden, Site Manager and Decommissioning Project Manager.
	CC2 - DEMP	Adopting the Considerate Constructors Scheme (CCS) to assist in reducing pollution, including GHGs, from the Proposed Development by employing good industry practice measures.			
	CC3 - DEMP	Decommissioning the Proposed Development in such a way as to minimise the creation of waste.			
	CC4 - DEMP	Reusing suitable infrastructure and resources already available in the Order Limits where possible to minimise the use of natural resources and unnecessary materials (e.g. reusing excavated soil for fill requirements).			
	CC5 - DEMP	Encouraging the use of lower carbon modes of transport by identifying and communicating local bus connections and pedestrian and cycle access routes to/ from the Proposed Development to all decommissioning staff and providing appropriate facilities for the safe storage of cycles.			

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
	CC6 - DEMP	Liaising with decommissioning personnel for the potential to implement staff minibuses and car sharing options.			
	CC7 - DEMP	Implementing a Travel Plan to reduce the volume of decommissioning staff and employee trips to the Proposed Development.			
	CC8 - DEMP	Switching vehicles and plant off when not in use and ensuring decommissioning vehicles conform to current EU emissions standards.			
	CC9 - DEMP	Conducting regular planned maintenance of the decommissioning plant and machinery to optimise efficiency.			
Impact of climate change on decommissioning works	CC10 - DEMP	The Contractor will monitor weather forecasts and plan works accordingly, protecting workers and resources from any extreme weather conditions.			
	CC11 - DEMP	Using equipment's cooling systems where necessary/adapting working practices and equipment used based on current weather conditions.			
	CC12 - DEMP	Monitoring weather forecasts and the news for Environment Agency flood warnings, relevant weather warnings, and water levels of the local waterways.			
	CC13 - DEMP	Protecting workers and resources from extreme weather conditions.			

Table 4-2 Mitigation and management measures for decommissioning - Biodiversity

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Direct and indirect impacts upon ecological features, including disturbance and damage / loss	BD1 - DEMP	Ecological Clerk of Works to be appointed to advise on protecting valued biodiversity features and provide practical, site-specific and proportionate advice on how to achieve compliance with environmental legislation.	ES Chapter 2 The Proposed Development Section 2.6 / ES Chapter 6 Biodiversity Section 6.9	Appropriate survey/s undertaken, and compliance with measures regularly recorded via an appropriate method to be determined in the DEMP. The DEMP will detail the frequency.	The overall responsibility will be with the PC. Specific responsibilities will be confirmed in the DEMP, expected to include the Ecological Clerk of Works, Environmental Manager, Site Manager and Decommissioning Project Manager.
	BD2 - DEMP	Ecological Clerk of Works to complete a pre-decommissioning survey in advance of decommissioning to reconfirm the ecological baseline conditions to identify any new ecological risk. The walkover will be completed sufficiently in advance of the decommissioning works to allow for the completion of any additional seasonal surveys (e.g., surveys in support of protected species licences) and implementation of mitigation measures.			
	BD3 - DEMP	A Species Protection Plan (SPP) to be implemented during decommissioning of the Proposed Development with full details outlined in the DEMP. The SPP will be a live document subject to review and updating and will assist site personnel in the protection of species during decommissioning, under the guidance of an ecological clerk of works.			
	BD4 - DEMP	Best practice measures to be implemented to control noise, light, vibration, and airborne and waterborne pollutants, as set out in their relevant topics.			

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Spread of invasive non-native plant species	BD5 - DEMP	Pre-decommissioning surveys will be undertaken to provide an update on the presence and location of any invasive species.			
	BD6 - DEMP	An invasive non-native plant species (INNPS) method statement should be created, detailing measures to minimise the risk of spreading invasive non-native plant species.			
Impact upon breeding birds	BD7 - DEMP	Clearance of vegetation of potential value to nesting birds will be completed outside of the bird-breeding season (considered to be between mid-February and August inclusive). However, should it not be possible to avoid this season, vegetation will be inspected/surveyed by the ECoW immediately before clearance (i.e., within 24 hours of clearance works). An active nest will be given an appropriate disturbance buffer for that species with work only allowed to take place within this buffer once the project ecologist has confirmed any young have fully fledged and left the nest.			
Impact upon bats	BD8 - DEMP	Maintenance of appropriate buffers between Solar PV modules and trees with potential bat roost trees with potential roost features (PRF), which will be protected during development, in line with British Standard BS 5837: Trees in relation to design, demolition and construction by establishing a Construction Exclusion Zone (CEZ) around their Root Protection Areas (RPA).			

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Impact upon hedgerows and trees	BD9 - DEMP	Hedgerows, tree lines, ditches and trees including the tree RPA are to be protected during decommissioning through the use of suitable buffers and fencing. For further information on tree buffers, see ES Appendix 7.5 Arboricultural Impact Assessment (Document reference 6.4.7.5).			
Impact upon reptiles	BD10 - DEMP	Should ground clearance of habitat suitable for reptiles/amphibians be required then this should be undertaken at the right time of year to avoid the hibernation period - i.e. avoid the period: October to March. The ECoW would supervise works and relocate any reptiles/amphibians found. If clearance of hibernacula features is necessary, then this should be done in the summer months to avoid disturbing hibernating reptiles (April to September).			
Impact upon badger, and other mobile species	BD11 - DEMP	For mobile species such as badger, pre-decommissioning surveys will be required to check the status of the setts identified and to locate any new active setts that would need to be protected. The design of badger access points within the security fencing such as their location and frequency will be based on baseline data and pre-decommissioning surveys and designed by a suitably qualified ecologist in badger ecology.			

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
	BD12 - DEMP	Any setts recorded are to be protected from direct impacts by maintaining a suitable standoff distance measured from professional judgement from existing setts and micro siting equipment if required.			
	BD13 - DEMP	Any exposed trenches or holes are to be covered up when contractors are off site (i.e. at night time) or a slope provided to allow any trapped badgers a safe exit.			
	BD14 - DEMP	Perimeter security fencing will be maintained until the end of decommissioning. The fence design will be around individual Panel Areas, to allow the movement of large mammals such as deer through the landscape along retained hedgerow margins.			
Impact upon waterbodies, and species within these	BD15 - DEMP	All works in proximity to waterbodies/watercourses should follow standard protection measures to ensure their complete protection against pollution, silting and erosion.			
	BD16 - DEMP	No nighttime work is to take place within 30m of watercourses/waterbodies (the period when otters are most active).			

Table 4-3 Mitigation and management measures for decommissioning – Landscape and visual

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Potential loss of vegetation to make way for decommissioning activities	LV1 - DEMP	A pre-commencement survey of vegetation prior to decommissioning should be undertaken to establish the extent to which any vegetation removal may be needed and identify required protection zones.	ES Chapter 2 The Proposed Development Section 2.6	Appropriate survey/s undertaken, and compliance with measures regularly recorded via an appropriate method to be determined in the DEMP. The DEMP will detail the frequency.	The overall responsibility will be with the PC. Specific responsibilities will be confirmed in the DEMP, expected to include the Ecological Clerk of Works, Environmental Manager, Site Manager and Decommissioning Project Manager.
Damage to trees / vegetation	LV2 - DEMP	Protect and retain existing trees and vegetation via decommissioning exclusion zones and tree protective fencing.			
Visibility of decommissioning activities	LV3 - DEMP	Temporary site lighting during decommissioning required to enable safe working during hours of darkness will be designed as far as reasonably practical so as not to cause a nuisance outside of the Proposed Development. Standard best practice measures will be employed to minimise light spill, including glare.			
Reverting land to original use	LV4 - DEMP	Components of the Proposed Development required for the operation of the Proposed Development would be removed during decommissioning. Any requirements to leave certain infrastructure, for example the access tracks, would be discussed and agreed with landowners as part of the decommissioning process.			
	LV5 - DEMP	Permissive rights of way and vegetation within the Panel Areas would revert to the management of the landowner.			

Table 4-4 Mitigation and management measures for decommissioning – Cultural heritage

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
None required					

Table 4-5 Mitigation and management measures for decommissioning – Land use and socioeconomics

Potential Impact being managed and mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Impacts to local residents, businesses and community facilities	LUSE1 - DEMP	Explore employment and supply chain opportunities throughout the decommissioning period.	ES Chapter 9 Land use and socioeconomics Section 9.9	Regularly record compliance via an appropriate method to be determined in the DEMP. The DEMP will detail the frequency.	The overall responsibility will be with the PC. Specific responsibilities will be confirmed in the DEMP, expected to include the Environmental Manager, Community Liaison Officer, Site Manager and Decommissioning Project Manager.
	LUSE2 - DEMP	Continued access will be provided to the identified recreational and community facilities in Table 9-4 of ES Chapter 9 Land use and socioeconomics.			
	LUSE3 - DEMP	An updated PRow Management Plan will be prepared and agreed with the LPA prior to the decommissioning phase to maintain provision of diverted PRow routes as per Table 9-8 of ES Chapter 9 Land use and socioeconomics.			
Impacts upon agricultural land and soil resources.	LUSE4 - DEMP	Outline Soil Resources Management Plan to be implemented.			

Table 4-6 Mitigation and management measures for decommissioning – Hydrology and flood risk

Potential impact being managed / mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Impact upon water resources and flood risk	HFR1 - DEMP	Implementation of measures outlined in ES Appendix 10.1 Flood risk assessment (FRA) and Drainage Strategy (Document Reference 6.4.10.1).	ES Chapter 2 The Proposed Development Section 2.6 / ES Chapter 10 Hydrology and Flood Risk Section 10.9	Appropriate water quality monitoring requirements to be agreed with relevant stakeholders and set out in the DEMP. Compliance with all measures regularly recorded via an appropriate method to be determined in the DEMP. The DEMP will detail the frequency.	The overall responsibility will be with the PC. Specific responsibilities will be confirmed in the DEMP, expected to include the Environmental Manager, Flood Warden, Site Manager and Decommissioning Project Manager.
	HFR2 - DEMP	Up to date requirements set out in pollution prevention guidance (and any other relevant guidance available at the time of decommissioning) will be provided in the DEMP.			
HFR3 - DEMP	Sediment control measures (silt fences, settlement/attenuation ponds etc.) would be used in the vicinity of watercourses, springs or drains where natural features (e.g. hollows) do not provide adequate protection.				
Impact upon water quality through erosion	HFR4 - DEMP	Trenching or excavation activities in open land would cease during periods of intense rainfall and temporary bunding would be provided as required, to reduce the risk of sediment transport to the natural drainage system.			
	HFR5 - DEMP	Permanent relocation or longer-term storage of soils would be re-instated with vegetation as soon as practicable.			
	HFR6 - DEMP	The movement of decommissioning traffic would be controlled to minimise soil compaction and disturbance. Vehicle movements (to include HGVs and plant machinery) outside the defined tracks and hardstanding areas would be avoided where possible.			

Potential impact being managed / mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
	HFR7 - DEMP	Areas of temporary tracks would be completed as soon as possible and surfaced appropriately to protect soils from runoff. Temporary fences or markers should be used to ensure minimal disturbance of the surrounding land.			
	HFR8 - DEMP	Wheel washing would be undertaken in designated areas only and sediment control measures would be used to ensure runoff from these areas would not enter directly into water courses.			
	HFR9 - DEMP	No decommissioning activities will take place within the watercourse buffer zones			
Impact upon water quality through pollution	HFR10 - DEMP	Equipment would be provided to contain and clean up any spills to minimise the risk of pollutants entering the watercourses or surface water features.			
	HFR11 - DEMP	Trenching or excavation activities in open land would cease during periods of intense rainfall.			
	HFR12 - DEMP	Refuelling of vehicles and plant machinery (if required) would be confined to the designated fuelling areas and would be carefully controlled and placed away from areas with high groundwater dependency and outside watercourse buffers.			
	HFR13 - DEMP	Vehicles, plant machinery and equipment would be cleaned at designated washout areas located conveniently and within a controlled area of the Proposed Development.			
	HFR14 - DEMP	All fuel and chemicals would be stored within appropriately specified containers and within specifically designed stores / storage areas and would include appropriate measures to avoid spillages in line with the relevant legislation.			

Potential impact being managed / mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
	HFR15 - DEMP	Drip trays would be placed under standing machinery. All solid and liquid waste materials would be properly disposed of in controlled landfill sites away from the site.			
	HFR16 - DEMP	Routine mechanical maintenance of vehicles would be carried out off-site or in a suitable designated area of the Proposed Development.			
	HFR17 - DEMP	There would be no unapproved discharge of foul or contaminated drainage from the Order Limits either to groundwater or any surface waters, whether direct or via soakaway.			
Increased flood risk	HFR18 - DEMP	Temporary land take areas (decommissioning compound with car parking, temporary storage area, temporary laydown areas, welfare facilities etc.) within the Order Limits will be fully reinstated following decommissioning to reduce areas of semi-impermeable surfaces. Temporary land take areas will be cleared of hardcore, re-graded with soil to a natural profile and re-vegetated.			

Table 4-7 Mitigation and management measures for decommissioning – Noise and vibration

Potential impact being managed / mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Decommissioning traffic noise and vibration	NV1 - DEMP	During decommissioning, the 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. Requirements will be agreed with the local authority at the time of decommissioning.			
Noise and vibration from decommissioning site activities	NV2 - DEMP	Measures to control noise as defined in Annex B of BS 5228:2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites - Part 1: Noise' [5] and measures to control vibration as defined in Section 8 of BS 5228:2009+A1:2014 'Part 2: Vibration' [6] will be adopted where reasonably practicable. These measures represent 'BPM' (as defined by section 72 of the Control of Pollution Act 1974) to manage noise and vibration emissions from construction activities and are considered relevant to decommissioning.	ES Chapter 2 The Proposed Development Section 2.6 / ES Chapter 11 Noise and vibration Section 11.9	A decommissioning noise monitoring scheme shall be developed and agreed with appropriate stakeholders and set out in the DEMP. Compliance with all measures regularly recorded via an appropriate method to be determined in the DEMP. The DEMP will detail the frequency.	The overall responsibility will be with the PC. Specific responsibilities will be confirmed in the DEMP, expected to include the Environmental Manager, Health and safety Manager, Community Liaison Office, Site Manager and Decommissioning Project Manager.
	NV3 - DEMP	Additional mitigation such as noise barriers around noise sources, or selection of equipment with lower sound power levels may be required as and where agreed with the local planning authority at the time of decommissioning.			

Table 4-8 Mitigation and management measures for decommissioning – Traffic and transport

Potential impact being managed / mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
Increased traffic flows and severance and intimidation associated with increased traffic	TT1 - DEMP	During decommissioning, the 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. Requirements will be agreed with the local authority at the time of decommissioning. Measures may include —	ES Chapter 2 The Proposed Development Section 2.6 / ES Chapter 12 Traffic and transport 12.9	Monitoring of traffic to and from the site as detailed and required in the DEMP. Compliance with all measures regularly recorded via an appropriate method to be determined in the DEMP. The DEMP will detail the frequency.	The overall responsibility will be with the PC.. Specific responsibilities will be confirmed in the DEMP, expected to include the Environmental Manager, Site Manager and Decommissioning Project Manager.
	TT2 - DEMP	The management of vehicles on-site.			
	TT3 - DEMP	The proposed access arrangements for decommissioning traffic across the decommissioning programme.			
	TT4 - DEMP	The access arrangements for decommissioning vehicles and staff.			
	TT5 - DEMP	The location of any wheel wash facilities.			
	TT6 - DEMP	Measures to ensure the transportation of decommissioning materials and waste is managed as sustainably as possible			
	TT7 - DEMP	The scheduling of decommissioning material and logistics traffic movements on the LRN and SRN outside of peak hours and to use designated routes into decommissioning sites.			
	TT8 - DEMP	The consolidation of decommissioning worker trips if possible.			
	TT9 - DEMP	Detail of cooperation with the Distribution Network Operator (DNO), during the works to enable connection at Norton Substation, to			

Potential impact being managed / mitigated	ID	Mitigation and/or management measure to be implemented	Source reference	Requirement for monitoring	Responsibility
		minimise potential cumulative effects of such works being carried out.			
	TT10 - DEMP	Measures to implement temporary decommissioning compounds within each Panel Area to reduce the impact of vehicle deliveries and turning movements on the LRN.			
	TT11 - DEMP	Any other mitigation required at the time to minimise the impact of decommissioning traffic on the transport network.			

5. Implementation

5.1.1. The DEMP will set out all roles, responsibilities and actions required in respect of implementation of the measures described in this Outline DEMP, including:

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

6. Maintenance and monitoring activities

6.1. Monitoring

- 6.1.1. To meet the requirement of the DEMP, environmental monitoring of the Proposed Development and its impacts will be undertaken throughout the decommissioning phase.
- 6.1.2. As part of the monitoring process the contractor will allocate a designated Environmental Manager(s), who will be present throughout the decommissioning phase and when new activities are commencing. The Environmental Manager will observe decommissioning activities and report any deviations from the DEMP, along with the action taken and general conditions at the time.
- 6.1.3. The Applicant will be informed of any deviations from the DEMP as soon as possible following identification of such issues, and if required further follow up will be sought. The Environmental Manager will also act as day-to-day contact with relevant local authorities and other regulatory agencies such as the Environment Agency.
- 6.1.4. During decommissioning, the Environmental Manager will conduct regular walkover surveys to ensure all requirements of the DEMP 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.
- 6.1.5. The Environmental Manager / Project Manager will arrange regular formal inspections to ensure the requirements of the DEMP are being met. After completion of the works, the Environmental Manager will conduct a final review.

6.2. Records

- 6.2.1. Records will be managed through the Quality and Safety Management Systems (QMS) and the Environmental Management System (EMS) of the PC which will be certified in line with the ISO 14001 standards.
- 6.2.2. The system would include methods for monitoring, recording, and implementing environmental management on site, and for responding to any noted areas of non-compliance. This will ensure that a high standard of environmental control is maintained through the lifetime of the Proposed Development through the corrective action system managed by the contractor.
- 6.2.3. The contractor's Project Quality Administrator will ensure there is a central filing system in place for any checklists, reports and monitoring consistent with the Project QMS and EMS. Records of compliance with the requirements of the DEMP, derived from audits and other inspection by representatives of any internal or external audit teams.
- 6.2.4. Records will include:

- Results of routine site inspections.
- Environmental surveys and investigations.
- Environmental Action Schedule.
- Environmental equipment test records.
- Licences and approvals.
- Corrective actions taken in response to incidents, breaches of the approved DEMP or complaints received from a third party.

6.2.5. The DEMP will be updated if it is necessary to add additional control measures, with a full review as required throughout the decommissioning period. Existing control measures and mitigation will not be amended without prior agreement with the local authorities.

References

[1] “Considerate Constructors Scheme,” [Online]. Available: <https://www.ccscheme.org.uk/>.