Frodsham Solar

Outline Decommissioning Environmental Management Plan

~~March~~April 2026

PINS Ref: EN010153
Document Ref: EN010153/DR/7.7
Planning Act 2008; and Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations Regulation 5(2)(q)

Cubico SUSTAINABLE INVESTMENTS

Revision ~~P06~~P07

Document Control

Revision	Date	Prepared By	Reviewed / Approved By
P01	May 2025	A Russell	D Adams
P02	November 2025	A Russell	D Adams
P03	December 2025	A Russell	D Adams
P04	January 2026	A Russell	D Adams
P05	March 2025	A Russell	D Adams
P06	March 2026	A Russell	D Adams
P07	April 2026	A Russell	D Adams

Prepared For:
Frodsham Solar Ltd

Prepared By:

Well House Barns, Chester Road, Bretton, Chester, CH4 0DH
1st Floor, Barfield House, Alderley Road, Wilmslow, SK9 1PL
Maling Exchange, Studio 307, Hoults Yard, Walker Road, Newcastle Upon Tyne, NE6 2HL

T: 0344 8700 007
enquiries@axis.co.uk
www.axis.co.uk

CONTENTS

1.0 INTRODUCTION 1
1.1 Background 1
1.2 Document Structure 2
1.3 Relationship with Other Management Plans 3
2.0 THE PROPOSED DEVELOPMENT 6
2.1 The Proposed Development 6
2.2 The Site 6
2.3 Site Context 8
2.4 Decommissioning Activities 9
3.0 ROLES AND RESPONSIBILITIES 13
3.1 Site Team 13
3.2 Stakeholders 14
4.0 DECOMMISSIONING ENVIRONMENTAL MANAGEMENT 16
5.0 ENVIRONMENTAL MITIGATION MEASURES 27
6.0 IMPLEMENTATION OF MANAGEMENT PLAN 50
7.0 MONITORING AND MAINTENANCE 51
7.1 Monitoring 51
7.2 Record keeping 52
8.0 REFERENCES 54

TABLES

Table 5-1: Summary of the decommissioning mitigation and management measures – Climate change 27
Table 5-2: Summary of the decommissioning mitigation and management measures – Landscape and visual 30
Table 5-3: Summary of the decommissioning mitigation and management measures – Terrestrial Ecology & Ornithology 31
Table 5-4: Summary of the decommissioning mitigation and management measures – Flood Risk, Drainage and Surface Water 35
Table 5-5: Summary of the decommissioning mitigation and management measures – Ground conditions 38
Table 5-6: Summary of the decommissioning mitigation and management measures – Cultural Heritage and Archaeology 41
Table 5-7: Summary of the decommissioning mitigation and management measures – Tourism & Recreation 42

Table 5-8: Summary of the decommissioning mitigation and management measures – Traffic and Transport 44
Table 5-9: Summary of the decommissioning mitigation and management measures – Noise and Vibration 46
Table 5-10: Summary of the decommissioning mitigation and management measures – Air Quality 47
Table 5-11 Summary of the decommissioning mitigation and management measures – Waste 49

1.0 INTRODUCTION

1.1 Background

1.1.1 This outline Decommissioning Environmental Management Plan (oDEMP) has been prepared for the decommissioning phase of the Frodsham Solar Project (hereafter referred to as 'the Proposed Development').

1.1.2 The Proposed Development is classified as a Nationally Significant Infrastructure Project (NSIP) and therefore Frodsham Solar Limited ('the Applicant') is applying for a Development Consent Order (DCO) to construct, operate and decommission the Proposed Development. The Proposed Development is 'EIA development' as defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations')[i], requiring an Environmental Impact Assessment (EIA).

1.1.3 The purpose of this oDEMP is to set out how the necessary environmental mitigation and monitoring, identified as part of the EIA and set out in the Environmental Statement (ES), will be delivered during the decommissioning of the Proposed Development and ensure that this mitigation is secured and embedded into project delivery.

1.1.4 This oDEMP is concerned with the decommissioning phase of the Proposed Development, the following documents cover the separate construction and operational phases:

- Construction phase – **Outline Construction Environmental Management Plan** (oCEMP) **[EN010153/DR/7.5]**; and
- Operational phase – **Outline Operational Environmental Management Plan** (oOEMP) **[EN010153/DR/7.6]**.

1.1.5 As per **ES Vol 1 Chapter 2: The Proposed Development [EN010153/DR/6.1]**, the operational life of the Proposed Development will be up to 40 years with decommissioning works having to commence no later than 40 years following the date of the final commissioning of the solar array. Once

the operational life of the Proposed Development ends, it will be decommissioned.

1.1.6 Decommissioning must also be undertaken if the decommissioning timing provisions set out in the **outline Operational Management Plan [EN010153/DR/7.6]** are engaged.

1.1.7 If the DCO is granted, this oDEMP will be developed into a final Decommissioning Environmental Management Plan (DEMP) prior to the commencement of any decommissioning works (noting that decommissioning may be brought forward in phases and so there may be multiple DEMPs[i]). Any DEMP brought forward must be in substantial accordance with this oDEMP, as set out by Requirement 20 of the **draft DCO [EN010153/DR/3.1]**. The DEMP must be submitted to and approved by Cheshire West and Chester Council (in consultation with the Environment Agency, National Highways and the relevant highway authority) prior to the commencement of the decommissioning works.

1.1.8 Nothing in this oDEMP will prevent the modification or omission of the control measures set out in section 4 and 5 where the decommissioning methodology means that the measures can be so modified or omitted. This will be confirmed (including confirming that the absence or change to such control measures will not lead to any materially new or materially different effects which are worse than those reported in the ES) at the time of submission of the final DEMP for approval.

1.2 Document Structure

1.2.1 This oDEMP is structured as follows:

- **Introduction** – provides an introduction to the document and defines the structure of the oDEMP;

[i] As such, references to 'the DEMP' within this oDEMP should be considered as meaning any DEMP that is brought forward.

- **Description of Development** – provides a summary of the Site and Site Context, a description of the Proposed Development, and sets out a summary of the expected decommissioning activities;
- **Roles & Responsibilities** – sets out the roles and responsibilities that will need to be defined at the decommissioning phase, and identifies stakeholders relevant to the environmental management of the decommissioning phase;
- **Decommissioning Environmental Management** – sets out principles and site rules to be applied in the decommissioning of the Proposed Development, and how communication with third parties will be undertaken during decommissioning;
- **Environmental Mitigation Measures** – sets out the environmental management and mitigation measures that are required to address the effects of the Proposed Development during the decommissioning phase, as relied on or identified in the ES;
- **Implementation of Management Plan** – provides a summary of the key requirements that must be within the final DEMP to ensure successful implementation of this oDEMP; and
- **Monitoring and Maintenance** – sets out the procedures for monitoring and ensuring compliance with the final DEMP, as well as requirements for record keeping.

1.3 Relationship with Other Management Plans

1.3.1 This oDEMP is part of a framework of environmental management documents that will be implemented during the decommissioning phase of the Proposed Development. The final DEMP will work alongside several other specific management plans for the decommissioning phase, which provide further details on mitigation and management measures. These include, but are not limited to:

- **Decommissioning Groundwater and Surface Water Management Plan (DGSWMP)**: This plan will detail site-wide measures for drainage,

rainfall runoff management, reducing runoff of silty or otherwise contaminated run-off and groundwater interaction during decommissioning. The plan will include flood risk mitigation which will be informed by the Flood Risk Assessment (FRA) and Drainage Strategy. The plan will be agreed with the relevant planning authority prior to decommissioning works commencing and will involve monitoring of groundwater and surface water quality prior to, during and for an agreed period of time after decommissioning has taken place.

- **Skills, Supply Chain and Employment Plan (SSCEP)**: This plan will ensure local economic benefits by setting out strategies for local job creation, workforce training, and engagement with regional suppliers for the decommissioning of the project.
- **Invasive Non-Native Species Management Plan (INNSMP)**: This plan will outline monitoring and control measures for invasive species during the decommissioning works, ensuring that species such as New Zealand Pygmyweed, Himalayan balsam and American Mink are effectively managed to protect biodiversity.
- **Environmental Incident Management and Pollution Prevention Plan**: This plan will provide a structured response framework for fuel or chemical spills, unexpected contamination events, and pollution control measures to prevent impacts on watercourses and groundwater.
- **Unexpected Contamination Protocol (UCP)**: If unexpected contamination is encountered during decommissioning, this protocol will detail the procedures for risk assessment, reporting, remediation, and verification.
- **Flood Warning and Evacuation Plan (FWEP)**: This plan will set out flood preparedness measures, warning systems, and emergency response actions in the event of extreme weather-related flooding.
- **Decommissioning Transport Management Plan** (DTMP) will be prepared to optimise vehicle movements and minimise unnecessary trips. The DTMP will describe measures to minimise the environmental and other potentially adverse impacts associated with the transport aspects of

the decommissioning. This will include minimising the extent and duration of temporary road closures and closures of Public Rights of Way (PRoW).

- **Decommissioning Noise Management Plan**: This plan will set out measures to control and manage noise impacts during the decommissioning phase of the Proposed Development.
- **Decommissioning Dust Management Plan**: This plan will set out measures to control and reduce dust during the decommissioning phase of the Proposed Development.
- **Decommissioning Waste Management Plan (WMP)**: This plan will set out procedures for the management of decommissioning waste, ensuring compliance with the Waste Hierarchy and regulatory requirements.

1.3.2 Each of these plans will contain specific monitoring and reporting requirements, which will be reviewed regularly by the Site Manager, Environmental Manager and relevant regulatory authorities. Monitoring results will be documented as part of the compliance framework for the decommissioning phase.

1.3.3 The DEMP prepared for any phase of the decommissioning works shall be accompanied by a programme setting out the main phases of works. Where relevant, the plans set out in paragraph 1.3.1 should include details of the programme.

1.3.4 If the DCO is granted, each of the above plans will be developed into a final document prior to the decommissioning phase commencing, with approval by Cheshire West and Chester Council prior to decommissioning, following consultation with National Highways, the Environment Agency and the local highways authority.

1.3.5 The final DEMP and the associated management plans will be reviewed and updated periodically to ensure continued compliance with regulatory requirements and best practice standards.

2.0 THE PROPOSED DEVELOPMENT

2.1 The Proposed Development

2.1.1 The Proposed Development comprises a new solar energy generating station and an associated on-site Battery Energy Storage System (BESS) on land at Frodsham Marsh, Frodsham, Cheshire West and Chester ('the Site'). The Proposed Development also includes the associated infrastructure for connection to the local electricity distribution network, as well as a private wire electricity connection that would enable local businesses to utilise the renewable energy generated by the Proposed Development.

2.1.2 The current design for the Proposed Development would enable the generation of approximately 147 megawatts (MW) of electricity, as well as the storage of approximately 100 MW of electricity in a BESS. The precise generating capacity and storage capacity would be subject to detailed design, but it should be noted that at present the Grid connection offer from the District Network Operator (DNO) is for 100 MW export and 50 MW import. As noted above the Proposed Development would also be capable of exporting electricity directly to local businesses.

2.1.3 Subject to obtaining the necessary consents, construction is anticipated to commence in early 2028 and be completed in mid-2030. The Proposed Development comprises a temporary development with an operational phase of up to 40 years. Decommissioning activities would therefore commence in 2070, 40 years after final commissioning.

2.1.4 A more detailed description of the Proposed Development is provided within **ES Vol 1 Chapter 2: The Proposed Development [EN010153/DR/6.1]**.

2.2 The Site

2.2.1 The Site is located approximately 500 m to the north of the centre of Frodsham Town Centre within the administrative area of Cheshire West and Chester Council (CWaCC).

2.2.2 The Site is defined by a single red line boundary that covers all land expected to be included within the Proposed Development, which in total is approximately 337.5 ha and is shown on **ES Volume 3 Figure 1-1 Site Location [EN010153/DR/6.3]**. This is also referred as the 'Order limits'.

2.2.3 The Site contains all of the principal elements of the Proposed Development which are illustrated on **ES Volume 3 Figure 1-2 Proposed Development Areas [EN010153/DR/6.3]** and includes:

- **'Solar Array Development Area'** – which would include solar photovoltaic modules and support frames, internal access tracks, cabling, inverters, transformers, the solar array substation (known as the 'Frodsham Solar Substation') and the BESS;
- **'Main Site Access'** – which would be routed from the west via the Pool Lane roundabout and the access tracks used for the Frodsham Wind Farm. There would be no access to the Site from Frodsham during construction, operation or decommissioning other than for emergency vehicles, and access to a potential new public car parking area proposed on Moorditch Lane;
- **'SPEN Frodsham Substation'** – which is included along with access into the substation in order to provide the Grid Connection;
- **'SPEN Grid Connection'** – which would link the on-site Frodsham Solar Substation to the Scottish Power Energy Networks ('SPEN') Frodsham Substation;
- **'Private Wire Connection'** – which includes land to facilitate future electricity connections to businesses located south-west of the Proposed Development;
- **'Non-Breeding Bird Mitigation Area'** – which includes land that would be used to mitigate for the potential impacts of the Proposed Development on wetland bird species; and
- **'Skylark Mitigation Area'** – which includes land that would be used to mitigate for the potential impacts of the Proposed Development on skylark.

2.3 Site Context

2.3.1 In the eastern half of the Solar Array Development Area (i.e. the area to the east of Brook Furlong), fields tend to be enclosed by dense hedgerows and tree belts. In the western half of the Solar Array Development Area, the Site is more open, with only occasional trees and remnant sections of hedgerow. There are areas of scrub and woodland present on the embankments of the Manchester Ship Canal (MSC) dredging deposit cells.

2.3.2 The landform across the Site is largely flat and low-lying alongside the Mersey Estuary, however, engineered embankments associated with flood defences and the M56 motorway are present around and through the Site. The eastern half of the Site lies within an area at potential risk of flooding, but which benefits from flood defences along the River Weaver. There are a series of drains which dissect the agricultural and former agricultural land in the eastern half of the Site.

2.3.3 There are large areas of industrial development along this section of the River Mersey corridor, including power stations, oil refineries, chemical and manufacturing sites, and Frodsham Wind Farm.

2.3.4 The closest settlement to the Site is Frodsham on the south side of the M56 motorway. To the south-west of Frodsham lies Helsby, approximately 2 km from the Solar Array Development Area. Both Frodsham and Helsby lie at the foot of the northern extent of the Cheshire Sandstone Ridge, which rises to a height of approximately 150m to the south of Frodsham and Helsby.

2.3.5 To the north and north-east of the Site, on the north bank of the River Weaver / Weaver Navigation, lies Runcorn and the settlements of Weston and Beechwood, located approximately 1km from the Solar Array Development Area.

2.3.6 The nearest residential properties to the Solar Array Development Area are within Frodsham beyond the M56 motorway to the south / south-east. Properties on Hawthorn Road and Wayford Mews are located approximately

140m from the Solar Array Development Area. Other properties within 350m of the Solar Array Development Area include those on Williams Way (230m distant) and Waterside Drive (290m distant). Two residential caravan sites are also located off Brook Furlong to the north-west of Frodsham (north of the M56). These lie adjacent to the draft Order limits. Both sites have been developed without planning permission.

2.3.7 A series of PRoW cross the Site. The PRoW network includes footpaths and restricted byways, which allow access by foot, horseback and cyclists. A national cycle route runs along a section of the Main Site Access and along part of the southern edge of the Site.

2.3.8 The Site is crossed by a series of utilities. The utilities that cross the Site include several above and below ground high voltage electricity transmission lines, high pressure gas lines, water distribution mains, telecommunication lines and private pipelines associated with nearby petrochemical plants. There are also proposals for new utilities across the Site which include a Carbon Dioxide pipeline and a Hydrogen pipeline. The Applicant is in discussion with the developer of these projects to ensure that none of the schemes will prevent the physical development of the others.

2.3.9 The Solar Array Development Area is designated as a Local Wildlife Site and lies within the Green Belt.

2.3.10 The Mersey Estuary to the north of the Site is designated as a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), and Ramsar site. The SSSI also covers a strip of land approximately 100m wide on the southern side of the Manchester Ship Canal, the eastern 500m of which lies within the Non-Breeding Bird Mitigation Area within the Site.

2.4 Decommissioning Activities

2.4.1 The Proposed Development comprises a temporary development with an operational phase of up to 40 years currently anticipated to be from 2030 to 2070. Decommissioning activities would commence no later than 40 years

following the date of final commissioning of the solar array (currently anticipated to be 2030 to 2070).

2.4.2 All solar PV modules, mounting poles, above and below ground cabling, inverters, transformers, BESS equipment, the Frodsham Solar Substation, fencing, drainage works, bridges and access roads, piles and concrete foundations would be removed from the Site and recycled or disposed of in accordance with good practice and market conditions at that time.

2.4.3 Cables and other infrastructure set out above will only be left in place where the damage caused by recovering them is considered greater than the environmental benefits of recovering and recycling them. However, cables embedded in watercourse crossings that are to be retained after decommissioning, and cables within 8m of those crossings, will be removed as part of the decommissioning works.

2.4.4 The Applicant would remove new crossings of main rivers where there are currently no existing crossings i.e. Crossing Point (CP) 17 (as illustrated on Environmental Statement: Volume 2 Appendix 2-1: Indicative Watercourse Crossing Schedule [EN010153/DR/76.2]). This shall require the removal of all superstructure and subterranean elements of the structure.

2.4.5 Confirmation of the approach to be taken, including a benefits/impacts analysis of the impacts of the preferred approach, will be set out in the detailed DEMP.

2.4.6 The benefits/impacts analysis will:

i) assess the environmental implications of removing versus retaining buried cabling and other subsurface infrastructure as well as the removal of the crossings of main rivers;
ii) consider factors including soil quality and structure, groundwater impacts, biodiversity, waste generation, carbon impact, and the safety of future land users;

iii) take into account contemporary best practice and regulatory guidance at the point of decommissioning; and

iv) provide a clear justification for the proposed approach, supported by evidence and if necessary site survey results and consultation with the relevant authorities.

2.4.7 The DEMP will also set out measures to ensure that no likely significant environmental effects arise as a result of any infrastructure left in situ, including post-decommissioning survey and verification where appropriate.

2.4.8 The Site would be returned to a condition suitable for return to its original use after decommissioning.

2.4.9 On decommissioning, the landscaping works undertaken across the Site would remain in place, and the land would be handed back to the landowner, with the only exceptions being the potential requirement by the landowner to revert the grassland created on the eastern half of the Site (to the east of Brook Furlong) and the Skylark Mitigation Areas back to land suitable for arable farming. Given that the western half of the Site is currently used for grazing, the grassland created and managed in this area would be retained.

2.4.10 Tree and scrub planting, together with created pond and wetland habitats, would be retained on handover to the landowners, including the habitats created within the NBBMA. However, as the land would be handed back to the landowners on completion of decommissioning the long-term retention of the landscaping improvement works cannot be guaranteed. Similarly, following decommissioning the landowner may or may not retain the permissive footpaths created across the Site.

2.4.11 The DEMP for any one phase, as defined by paragraph 1.3.3, shall set out the Applicant's understanding of the landowners' position as to the future status of the permissive paths across that phase following the return of the land back to the landowners as well as details of how the Applicant will publicise any intended permissive path closures to the community.

2.4.12 The DEMP will be accompanied by a plan illustrating the proposed final end state of the Site following completion of the decommissioning and restoration works. The DEMP shall show any infrastructure that will be left in place pursuant to paragraph 2.4.2 above and the landscaping and access provisions which remain at the point the land is to be returned to the landowners.

2.4.13 Decommissioning is expected to take between 12 and 24 months and would be undertaken in phases.

Decommissioning Access Strategy

2.4.14 It is anticipated that access during the decommissioning phase will follow the same principles as in the construction phase, and therefore the mitigation measures set out in the **outline Construction Traffic Management Plan** (oCTMP) **[EN010153/DR/7.4]** would also apply to the decommissioning phase.

2.4.15 A specific Decommissioning Traffic Management Plan (DTMP) will be prepared prior to commencement of the decommissioning phase, in consultation with the CWaCC.

3.0 ROLES AND RESPONSIBILITIES

3.1 Site Team

3.1.1 The following are key Site roles during the decommissioning phase that will have responsibility for management of environmental impacts, with responsibilities for each role also set out (this list is not definitive and additional roles and responsibilities may be added to the final DEMP):

- **Principal Contractor** – This is a formal role established in the CDM Regulations (2015)[ii]. The Principal Contractor will be appointed by Frodsham Solar Limited and have responsibility for co-ordinating the decommissioning phase of the Proposed Development.
- **Site Manager** –A Site Manager will be identified who will have overall responsibility for implementation of the DEMP and all other DCO and legislative requirements.
- **Quality Manager** – The Quality Manager will have responsibility for quality assurance and compliance, document management and record keeping, inspections for quality control, management of risks, and process improvement related to quality control and assurance. For the DEMP they will have responsibility for quality assurance of procedures and for management of documentation, records, and monitoring of the systems relating to the same.
- **Health and Safety Manager** – responsible for the monitoring and control of health and safety, and the rules and regulations arising from this.
- **Environmental Manager** – The Environmental Manager has responsibility for management of environmental matters related to the decommissioning phase of the Proposed Development, including ensuring compliance with legislation, ensuring that mitigation, management and monitoring measures are implemented, and that best practice is applied during works. The Environmental Manager will be a point of contact with environmental bodies and other third parties as required to perform their duties.

- **Environmental Clerk of Works** – The Environmental Clerk of Works (ECoW) will be a suitably qualified environmental professional responsible for on-site management and monitoring of environmental impacts including for soil management, pollution control, noise and dust monitoring, and surface water.
- **Ecological Clerk of Works** – The Ecological Clerk of Works (EcoCoW) will be a suitably qualified ecologist responsible for on-site managing and monitoring of the works in relation to habitats, protected species, and other wildlife.
- **Flood Warden** – The Flood Warden will be responsible for preparation, management, and response to flood incidents, inclusive of reacting to flood warnings and alerts.
- **Community Liaison Officer** – The Community Liaison Officer will be the point of contact for the Community Liaison Group (CLG), ensuring that updates are issued during decommissioning of the Proposed Development.

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

3.2 Stakeholders

Community Liaison Group

3.2.1 A Community Liaison Group (CLG) will be formed prior to construction (per the **Outline Construction Environmental Management Plan [EN010153/DR/7.5]**) and will continue through its operations until decommissioning of the Proposed Development is complete (including any restoration provisions).

3.2.2 During the decommissioning phase, the purpose of the CLG will be to allow interested community members and bodies to be updated on decommissioning activities. The Community Liaison Officer will provide updates on upcoming and current work taking place on site, any changes that

may occur (e.g. due to unforeseen circumstances), and other useful information (e.g. movement of large loads etc.). The Applicant will fund the administration of the CLG. The CLG will allow local residents to raise issues with the Community Liaison Officer and to act as a forum to discuss relevant issues for the decommissioning of the Proposed Development. Membership will be open to the following non-exhaustive groups:

- Cheshire West and Chester Council;
- Town/Parish Councils;
- Local Businesses; and
- Local Community Groups.

4.0 DECOMMISSIONING ENVIRONMENTAL MANAGEMENT

4.1.1 This section of the oDEMP sets out the general principles and control measures that will be employed on Site during the decommissioning phase, which are applicable to all aspects of the Proposed Development.

Decommissioning Hours of Work

4.1.2 Decommissioning operations would generally be limited to 08:00 to 18:00hrs Monday to Friday and 08:00 to 13:00hrs Saturday, with no works on Sundays or Bank Holidays.

4.1.3 These decommissioning hours of work will be observed unless there are exceptional circumstances where the need arises to work outside of them. Where works are to be conducted outside the above hours, they will comply with the restrictions stated in the DEMP and any other restrictions agreed with the relevant local planning authority at the time.

Site Security

4.1.4 The Site will be secured during decommissioning by the security fencing already in-situ and surrounding the Proposed Development from its operational phase. It is intended that this will remain in-situ during the decommissioning works and thus would be the last feature to be removed. All plant and materials will be secured to prevent theft or vandalism. Remote monitoring and intrusion detection is likely to be managed via the use of deterrent systems such as 'Armadillo' camera security units.

Protection of the Public

4.1.5 In addition to the responsibilities set out under CDM Regulations 2015 (or the current equivalent legislation in place at the time of the decommissioning of the Proposed Development), the Site Manager will be alert to the risk of works being accessed by unauthorised members of the public and will ensure that site security is maintained at a high standard across the Site to ensure that the risk of access by trespassers is minimised.

4.1.6 A high standard of 'housekeeping' will also be maintained across the site to reduce risks to trespassers in the event that they do gain access to the Site. Compounds and material storage areas will be fully secured within the site, and all materials, equipment, and plant will be fully secured when not in use, and in particular at the end of each working day.

4.1.7 Where Public Rights of Way (PRoW) or permissive paths that can be safely retained in use during the decommissioning works cross the Site or interact with decommissioning access routes they will be suitably managed to protect the public. Management of PRoW is likely to involve the use of mesh fencing or Heras fencing as appropriate in order to clearly demarcate and separate PRoW from decommissioning traffic and activities. Where necessary, banksmen would be utilised where decommissioning traffic is required to cross a PRoW.

4.1.8 An **outline Public Right of Way Management Plan [EN010153/DR/7.9]** has been prepared and submitted with the application for development consent. This document sets out the principles by which PRoW will be managed during the construction and operational phases. The final DEMP will include details of the measures required to manage PRoW during the decommissioning works. These are expected to include measures similar to those set out in the construction phase section of the **outline Public Right of Way Management Plan [EN010153/DR/7.9]**.

Signage

4.1.9 Health and Safety Signage will be positioned on the Site perimeter and around the site guiding traffic and pedestrians, and giving warnings of potential dangers and hazards (e.g. Warning: Construction site, No authorised access, Caution: construction traffic, and public/pedestrian directional signage etc.). Within the Site and at access points, signage will be erected setting out required conduct within the Site boundaries (e.g. Site Safety conduct signage, PPE instruction signage, Danger: Overhead Wires etc.).

Inductions

4.1.10 All site visitors and operatives will be directed in the first instance to a main compound, here they will be required to sign in and undergo a suitable induction.

4.1.11 Inductions will be completed as appropriate for the role and in accordance with best practice approaches prior to commencing work or visiting site. Records of inductions and competencies will be held on site.

4.1.12 Risk assessments and methods statements will be produced for all activities and they will be site-specific. Operatives will be briefed on method statements and risk assessments relevant to their work prior to their commencing work. Copies of the Risk Assessments and Method Assessments will be held on site and will be available for use and inspection.

4.1.13 Operatives and visitors will be required to sign in and out every day.

Health and Safety

4.1.14 The requirement for comprehensive health and safety assessments are an essential part of the construction process, with demolition and decommissioning work treated in the same way as any construction work, with the CDM Regulations 2015 setting out requirements and responsibilities. Thus, a CDM Coordinator will be required to be appointed by the Principal Contractor prior to any decommissioning work commencing, and with health and safety assessments to be produced as part of the Construction Phase Plan[ii] required under the CDM Regulations (2015) (or the current equivalent legislation in place at the time of the decommissioning of the Proposed Development).

[ii] *Under the CDM Regulations 2015, a 'Construction Phase Plan' would be prepared, despite it covering decommissioning works.*

4.1.15 Weekly meetings will be held to review matters related to health and safety. The Health and Safety Manager will ensure that they or a suitably qualified member of their organisation regularly visits the site to monitor health and safety matters. Monitoring reports will be produced and provided after these visits.

4.1.16 Reportable accidents and dangerous occurrences will be reported in accordance with RIDDOR (or the equivalent legislation in place at the time of the decommissioning of the Proposed Development).

4.1.17 In line with other requirements in this section, appropriately licensed contractors will be appointed to undertake groundworks, a safe system of working will be established prior to the commencement of decommissioning works, and PPE/Respiratory protective equipment (RPE) suitable for the tasks must be worn by operatives.

4.1.18 The Site lies close to a number of Control of Major Accident Hazards (COMAH) industrial sites and a number of pipelines carrying hazardous substances cross the Site. The necessary site induction and safety instructions must be adopted to ensure staff and visitors are aware of the evacuation and safety procedures in the event of an emergency. The DCO contains protective provisions relating to the pipelines crossing the Site and the limitations / requirements set out in those protective provisions would be observed throughout the decommissioning period to ensure the health and safety of site workers, visitors and the public using the PRoW on the Site.

Pollution and Contamination

4.1.19 General measures are set out in the following section to address potential contamination within the Site, and these must be followed by Site Operatives during the decommissioning phase to ensure that the potential for impacts from contamination is adequately addressed and mitigated. An Unexpected Contamination Protocol and an Environmental Incident Management and

Pollution Prevention Plan would be prepared as part of, or to accompany the final DEMP.

4.1.20 The Protocol shall provide that should a pollution incident occur, then works shall stop immediately within the affected area while further investigation is carried out. An appropriately qualified contaminated land specialist will be contacted immediately. The specialist will attend the Site, examine the potential contaminative materials (including taking samples where required of the material or soil), and provide advice as to required actions (if any). CWaCC, and where necessary, the Environment Agency, shall be notified promptly in writing confirming the risk assessment, investigation, remediation and validation measures and approval to undertake such measures will be sought. For any new contaminant sources, substances and contaminant linkages, works will stop in the area and the area will be secured until CWaCC, and if necessary, the Environment Agency has agreed the proposed investigation, remediation and associated validation measures. Following the implementation of the approved remediation strategy, a verification report, based on the data collected as part of the remediation strategy and demonstrating the completion of the remediation measures will be provided to CWaCC and the Environment Agency.

4.1.21 All accidents, incidents and near misses (including spills, dust, noise pollution etc) will be reported to the Site Manager immediately. These will be recorded and investigated as appropriate. Details to be recorded will include: a description of the incident, potential contributory causes, adverse effects, measures implemented to mitigate adverse effects, and effectiveness of measures implemented to prevent incidents happening again.

Welfare Provision

4.1.22 Full welfare facilities will be provided by the Principal Contractor (as required by the CDM Regulations 2015) and these must be in place prior to construction work commencing. The welfare facilities must be placed in convenient locations within each of the construction compounds on the Site,

and as a minimum these will comprise the following: offices, welfare facilities, a toilet block, and stores. The main construction compounds will include additional/larger facilities reflecting their role.

Lighting

4.1.23 Lighting during decommissioning will need to be sufficient to satisfy health and safety requirements, whilst ensuring impacts on the surrounding environment, including from sky glow, glare and light spillage, are minimised.

4.1.24 Artificial lighting will generally only be used during the hours of darkness, low levels of natural light or during specific tasks to ensure the health, safety and welfare of those on site, including staff and visitors.

4.1.25 Appropriate lighting will be installed and operated to ensure that:

- access/egress points are clearly visible during operational hours;
- staff and visitors can move safely around the Site;
- site security can be monitored and maintained; and
- sufficient area lighting is provided for the Site office and laydown areas.

4.1.26 Lighting towers will be required during winter months at each of the compounds. There may also be a requirement for mobile task lighting at some locations e.g. PCUs, transformer units, BESS compound and Substation compound. Lighting will not be operated outside of the specified working hours. Lighting will utilise directional fittings and cowls to minimise outward light spill and glare.

4.1.27 A sensitive lighting strategy to reduce potential impacts on biodiversity will be adopted across the Site as set out in Table 5-3. The sensitive lighting strategy should ensure that lighting is not directed towards the NBBMA. When task lighting is required suitable measures should be implemented to avoid unnecessary lighting spill into adjacent habitats e.g. through the use of appropriate lighting strength, cowls and hoods.

Utilities

4.1.28 Statutory undertakers will be engaged in regard to the existing and proposed utilities infrastructure (e.g. gas pipelines, water mains, electricity cables etc.) set within or around the Site and to agree safe working methods around that infrastructure. The **draft DCO [EN010153/DR/3.1]** includes protective provisions for the protection of existing utilities. Pre-decommissioning surveys are to be undertaken to accurately map the presence of utilities infrastructure on the Site.

Emergencies, Fire Plan, and Special Site Instructions

4.1.29 Emergency planning will be developed in consultation with the relevant local authority emergency planning officer, emergency services including the local fire and rescue service, as well as the Environment Agency in relation to responding to flood warnings and events.

4.1.30 The DEMP will detail the procedures for responding to incidents and emergencies on site, and any reporting.

4.1.31 A notice displaying emergency contact details will be displayed in a prominent location onsite – such as within the Site office. External notices providing emergency contact details will be placed at prominent locations around the perimeter of the Site.

4.1.32 During site induction all personnel must be advised of the firefighting equipment on site and the escape routes and procedures.

Certification of Mobile Plant

4.1.33 All plant will have the appropriate certification and checks with copies held on file on site. All plant will be regularly inspected and maintained, and records of these inspections will be held on file on site.

Waste management

4.1.34 The Waste Hierarchy must be applied by any person who produces, keeps or manages waste per the duty set out in the Waste (England and Wales) Regulations 2011[iii]. The Waste Hierarchy requires any person managing waste to first consider waste prevention, then preparing material for re-use or recycling, and only then use waste recovery methods (i.e. firstly energy recovery, and then waste disposal as the last option). Thus, the waste hierarchy must be applied when managing the decommissioning phase of the Proposed Development.

4.1.35 Detail of measures to minimise, re-use, and control waste are set out later in this document and will be detailed in the final Decommissioning Waste Management Plan. However, briefly, these will as a minimum include:

- Take all reasonable steps to minimise the volume of waste generated by the decommissioning phase of the Proposed Development (e.g. reduce and re-use);
- Separate main waste streams and segregate them to maximise opportunities of re-use and recycling; and
- Where waste is to be removed from the Site to a waste facility then fully licensed waste carriers will be used and waste will be taken to licensed facilities.

Surface Water Management

4.1.36 Prior to the commencement of decommissioning works a Decommissioning Groundwater and Surface Water Management Plan (DGSWMP) will be produced and will be agreed with the relevant local authority at the time. This will set out the proposed management measures for surface water quality, and detail of methods for decommissioning activity in accordance with best practice.

4.1.37 The DGSWMP will operate alongside the final DEMP, with both ensuring the proper management and maintenance of their respective aspects of the Proposed Development.

Flood Risk

4.1.38 The Proposed Development has been designed to account for flood risk across the full life of the development, including decommissioning, as set out in **ES Vol 2 Appendix 9-1: Flood Risk Assessment and Drainage Strategy [EN010153/DR/6.2]**.

4.1.39 To manage the residual risk of flooding to Site Operatives a Flood Warning and Evacuation Plan will be developed and a Flood Warden will be appointed, who will be familiar with the Site, and will ensure that Operatives are alerted when there is a risk of flooding and that work in impacted areas is rescheduled or stopped in advance of any such event. The Flood Warden will liaise with the Environment Agency to receive appropriate flood warnings in advance of any potential flood event.

Liaison with the Public

4.1.40 Neighbouring residents will be informed about the progress of works on the Site throughout the duration of the decommissioning phase of the Proposed Development via the CLG. Regular communications will be sent to them to provide updates on the work, any changes that may occur (e.g. due to unforeseen circumstances), and other useful information (e.g. movement of large loads, establishment of road works etc.). These will also include details of a contact telephone number and the project website.

4.1.41 A contact telephone number will be maintained throughout the duration of works (including an outside of working hours [out of hours] number for use if required) to allow members of the public, local businesses, and other such parties to make enquiries or to raise a complaint. The telephone number provided to local residents and businesses will be maintained at all times

whilst the decommissioning works are taking place in order to respond to any enquiries and complaints.

4.1.42 A project website will be maintained throughout the duration of works to allow members of the public, local businesses, and other such parties to view updates on the project, make enquiries or raise a complaint. The project website will be maintained at all times whilst the decommissioning works are taking place in order to respond to any enquiries and complaints.

4.1.43 A display board will be placed in a prominent location at the Site (e.g. at the site entrance), and regular smaller site boards will be placed at key points on the site boundary. The main site display board shall provide detail on the works being undertaken and notices/summary information as the current stage of works and upcoming work. All site boards shall include detail of works being undertaken, the contact telephone number (including the out of hours number), the project website and a postal address where enquiries/complaints may be sent.

4.1.44 Any complaints arising from the site during the decommissioning phase will be addressed by the Site Manager. A Complaints Register will be maintained, and this will include the following:

- Complainant's details;
- Date and time of the complaint;
- Cause(s) of the complaint; and
- Action taken to resolve the complaint, and date and time of the same, or reasons for any unresolved complaints (including where no issue is found).

4.1.45 The Complaints Register will be regularly reviewed by the Site Manager as part of monitoring of the DEMP to ensure that it is being followed, that any issues are identified, and to monitor compliance with its Management and Mitigation Measures. It will also be made available to the local planning authority to inspect on request.

Land Access and Collaborative Working

4.1.46 Proactive collaboration will be undertaken throughout the decommissioning phase with other developers of major projects that interact with the Order limits, and the Site Manager will co-ordinate where practicable on environmental mitigation measures and their operational / maintenance requirements.

4.1.47 The Principal Contractor will ensure that operation of the Manchester Ship Canal is not interrupted during any point of the decommissioning phase, and that the Manchester Ship Canal Company always has access to their land.

4.1.48 During each phase of the Proposed Development the Applicant will ensure that the requirements of the Proposed Development do not prevent access being available at all times to Hover Force Limited land.

4.1.49 The Principal Contractor will ensure that access is available at all times to Marsh Farm, The Lum, the Frodsham Pumping Station, the former sewage outfall, the dedicated Skylark Mitigation Area, and the operational Frodsham Wind Farm, which are to be retained within the Order limits.

Best practice measures

4.1.50 The Considerate Constructors Scheme (CCS), or equivalent scheme at the time of decommissioning, will be adopted for the Proposed Development. This standard includes best practice measures that go beyond statutory compliance and thus will further reduce pollution and nuisance from the Proposed Development.

Monitoring & Implementation Arrangements

4.1.51 The Site Manager will be responsible for the day-to-day management of the site and will ensure that all restrictions / provisions noted in this DEMP are undertaken. Details of general monitoring requirements are set out later in this document.

5.0 ENVIRONMENTAL MITIGATION MEASURES

5.1.1 The following tables set out outline mitigation and management measures that will as a minimum form part of the final DEMP or the relevant identified associated plans. These have been prepared using detail set out in the ES of required measures for each topic. These measures are secured via the requirements of the **draft DCO [EN010153/DR/3.1]**, and a final DEMP will be prepared prior to decommissioning commencing.

Table 5-1: Summary of the decommissioning mitigation and management measures – Climate change

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Impacts upon on-site workers from extreme weather events and conditions	Weather conditions will be actively monitored, with forecasts reviewed daily to inform site operations. This includes proactive planning to account for the possibility of extreme weather events including the use of extreme weather alert systems.	Logging of weather forecasts and distribution to site staff and contractors. Periodic audits of RAMS and staff training compliance.
	Risk Assessment Method Statements (RAMS) will be developed for site activities, ensuring appropriate safety measures are in place for adverse weather conditions.	
	Staff will be provided with climate-appropriate PPE and trained in extreme weather response protocols.	
Damage to equipment from extreme weather events / climate conditions	Ensure that equipment, plant, and materials used in decommissioning meet industry standards for extreme weather resilience. Regular maintenance checks will be undertaken to ensure there are no defects that could be vulnerable to extreme weather events.	Routine inspection and maintenance of equipment and drainage infrastructure.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
	Existing site drainage infrastructure will be maintained during decommissioning to prevent flood-related equipment damage. Equipment will be elevated or removed from flood-prone areas where necessary and covered when stored as appropriate.	Incident reporting for any weather-related damage.
Increased risk of flooding	A Flood Warden will be appointed to monitor site conditions and ensure timely response to flood warnings and a Flood Warning and Evacuation Plan developed.	Regular review of flood warning systems and emergency response plans. Post-event evaluation of flood mitigation effectiveness.
Release of greenhouse gas (GHG) emissions from decommissioning activities, including vehicle movements	A Decommissioning Transport Management Plan (DTMP) will be prepared to optimise vehicle movements and minimise unnecessary trips. Low-emission vehicles will be encouraged prioritising the best available vehicles at the time.	Monitor fuel consumption of decommissioning plant and vehicles. Record transport emissions data in line with best practices at the time.
Embodied carbon emissions from the disposal of decommissioned materials	Prioritise the recycling and re-use of materials, including PV panels, mounting structures, inverters, transformers, and BESS units. Work with accredited recycling and waste management facilities to minimise landfill waste.	Conduct waste audits to track the proportion of materials re-used and recycled.
Fugitive emissions of sulphur hexafluoride (SF6) from gas-insulated electrical equipment	~~SF6-free electrical components will be prioritised wherever feasible to eliminate emissions from gas-insulated switchgear and transformers.~~	Regular equipment inspections to ensure SF6 containment integrity.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
	~~For any equipment that uses SF6, only sealed-for-life components with extremely low leakage rates will be used to minimise fugitive emissions.~~ ~~Routine inspections of electrical equipment will be conducted to detect and prevent leaks.~~ End-of-life disposal of any SF6-containing equipment will follow best practice handling procedures to prevent atmospheric release and methods used for disposal will comply with the F-gas Regulation and/or its successors~~.~~	Monitoring and reporting of SF6 usage, leakage rates, and disposal practices.

Table 5-2: Summary of the decommissioning mitigation and management measures – Landscape and visual

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Potential loss of vegetation during decommissioning	A pre-decommissioning vegetation survey will be conducted to determine areas requiring protection during decommissioning activities. Any vegetation lost during decommissioning works will be replaced, following guidance in the final LEMP and using native species to support biodiversity and landscape integration.	Compliance to be recorded in the DEMP.
Visibility of decommissioning activities	Site to be kept tidy and organised. Temporary site lighting during decommissioning that is required to enable safe working during hours of darkness will be designed as far as reasonably practicable so as not to cause a nuisance outside of the Site. Standard best practice measures will be employed to minimise light spill, including glare.	
Disruption to users of Public Rights of Way	Refer to Table 5-7 Tourism and Recreation.	-

Table 5-3: Summary of the decommissioning mitigation and management measures –Terrestrial Ecology & Ornithology

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Potential loss of habitats due to site clearance and removal of infrastructure	A Pre-Decommissioning Ecological Survey will be conducted prior to submission of the final DEMP to the LPA, in order to assess changes in site conditions and update mitigation requirements. Surveys shall be carried out between 12 and 24 months before decommissioning, unless otherwise agreed with the LPA. Retained habitats, including hedgerows, trees, and wetland areas, will be protected using exclusion zones and buffer strips. Retained trees will be protected in accordance with BS 5837:2012. An Arboricultural Method Statement shall be prepared prior to decommissioning works to detail protection measures required. Areas that have been created for ecological mitigation, such as the Non-Breeding Bird Mitigation Area (NBBMA), will be left intact where possible. If mitigation areas are to be lost by reverting these areas back to the land use prior to the commencement of the Proposed Development, the programme of these works should be agreed with CWACC ~~2~~412 months prior to the works being undertaken. The NBBMA should remain intact and under management until all of the decommissioning works on the solar array development area have been completed. Soil management measures in line with the principles of the approved Soil Management Plan for construction will be set out in the DEMP to ensure that soil is returned in order of removal, inclusive of removing, storing, and reinstatement of turf layer. Track matting will also be installed in any areas of vehicle/plant tracking and where equipment is placed. Non-tidal watercourses to include a minimum 10m buffer, excluding new crossing points, in which no works (other than landscaping and access) are to occur. Tidal watercourses to include a minimum 16m buffer, excluding new crossing points, in which no works (other than landscaping and access) are to occur.	Post-decommissioning habitat surveys to assess regeneration. Regular ecological monitoring during decommissioning.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
	Hedgerows or areas of substantial vegetation to include a minimum 6m buffer, excluding new crossing points, in which no works (other than landscaping and access) are to occur. Retained ponds and reedbeds to include an 8 m buffer in which no works (other than landscaping) are to occur.	
Disturbance to protected and notable species during decommissioning works	A Pre-Decommissioning Ecological Survey will be conducted to identify any protected species in accordance with best practice at the time. Appropriate exclusion zones will be established in accordance with regulatory requirements. An Ecological Clerk of Works (EcoCoW) will oversee site activities to ensure compliance with wildlife legislation. Trenches will be backfilled or covered overnight, or otherwise fitted with a means of escape to prevent entrapment, such as planks or ramps. Where used, ramps will be no greater than 45 degrees in angle. Best practice measures will be implemented to control dust, noise, light, vibration, and vehicle movements, as set out in the air quality, noise, and traffic tables of this outline CEMP. A sensitive lighting strategy will be put in place to manage temporary lighting used during the decommissioning phase. Lighting to be used only where required, and if used it is to be task specific and directed away from boundary habitats including woodland, hedgerows and watercourses. The sensitive lighting strategy will be informed by current guidance for bats, *Guidance Note 08/23: Bats and Artificial Lighting at Night (2023).*	Watching briefs by the EcoCoW during high-risk activities.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Displacement of wintering and breeding birds due to removal of habitats and noise disturbance	Decommissioning works will be phased with work in closest proximity to the NBBMA and Mersey Estuary to be undertaken outside the core non-breeding bird period (Nov-Feb)as far as practicable. If works must occur during the nesting season, pre-works bird surveys will be required, and any active nests will be protected with exclusion buffers. Temporary fencing and signage will be used to minimise worker disturbance to sensitive bird areas. Work will be undertaken in accordance with a Decommissioning Noise Management Plan (DNMP), which will be prepared as part of, or to accompany, the final DEMP.	Regular ornithological monitoring throughout decommissioning.
Spread of Invasive Non-Native Species (INNS) due to soil movement and site clearance	A Pre-Decommissioning INNS Survey will be conducted to inform the production of an INNS Management Plan. Biosecurity measures will be implemented, including vehicle/equipment washdown protocols. Identified INNS populations will be managed or removed using approved treatment methods and disposed of in accordance with best practice guidance. The EcoCoW will ensure that a toolbox talk is provided to contractors on avoidance / good practice measures required to avoid facilitating the spread of INNS.	Regular INNS site inspections during decommissioning. Monitoring of biosecurity compliance and treatment effectiveness.
Degradation of retained habitats due to pollution, dust, and runoff from decommissioning works	Dust suppression measures (e.g., damping down) will be used to minimise air quality impacts on sensitive habitats. Spill prevention measures will be in place, including bunded fuel storage and spill response kits.	Regular site inspections by the ECoW and Environmental Manager.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
	Watercourse buffer zones (minimum 10m) will be maintained to prevent contamination of aquatic habitats. Regular maintenance of sediment control measures, including silt fences and drainage channels. Details of the above will be set out in the Decommissioning Dust Management Plan.	

Table 5-4: Summary of the decommissioning mitigation and management measures – Flood Risk, Drainage and Surface Water

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Soil erosion and sedimentation affecting watercourses and surface water quality	A Decommissioning Groundwater and Surface Water Management Plan (DGSWMP) will be developed that sets out measures for the site wide management of surface water, rainfall run off, ground water, and site drainage. . A minimum buffer distance of 10 m from watercourses will be observed for all decommissioning works. This is with the exception of access tracks, cable crossings and drainage ditches. The minimum 10m exclusion zone will be maintained and demarcated using Heras fencing or retention of the operational fencing during the main decommissioning works (with fencing removed at the end of the decommissioning works process). All reasonably practicable measures will be taken to prevent the mobilisation and deposition of sediment from decommissioning activities to any existing watercourse. In the first instance, any major works around watercourses will be minimised during heavy precipitation events and carried out during dry months where practicable. Where works within a watercourse or ditch are required when they are in flow, then flow will be maintained by damming and over pumping, with the feature reconnected only once works are complete. Immediately prior to reconnection, features such as silt fencing or geotextiles will be installed to capture mobilised sediment and will only be removed once the watercourse has returned to a settled state. The watercourse must also be reinstated to the condition that it was in prior to work commencing on it. Where there is a risk of silt entering a watercourse e.g. works within 10m of a watercourse, silt fencing and where appropriate, filter strips will be utilised to trap and filter run-off from excavation works. Silt matting may be placed at the outfall of settlement ponds (where these are utilised) to filter sediment during heavy rainfall events.	Regular water quality monitoring to detect sedimentation and contamination impacts shall be undertaken monthly during decommissioning works. The monitoring plan should provide details of quantity, location and method of monitoring. Water samples should be sent to a United Kingdom Accreditation Service (UKAS) accredited laboratory, and where applicable Monitoring Certification Scheme for Equipment (MCERTs) accredited testing must be carried out. The results of laboratory analysis of water samples should be tabulated, recorded and be able to be provided to the Council or the Environment Agency if requested, or sent automatically in the event of a pollution incident. Visual inspections of erosion control measures.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
	Tracks within the Site and any other hard surfaces will be kept clean to prevent mud and sediment accumulating on these surfaces that may then mobilise in rainfall events. Any wastewater that is produced during the decommissioning phase from activities such as dewatering, will be disposed of in accordance with relevant legislation and will not be discharged directly to surface or foul drains without appropriate licences in place. As soon as possible after decommissioning, preparation, seeding and protection (where required) will be carried out to encourage revegetation on all bare ground and thus prevent erosion.	
Contamination of groundwater and surface water from spills, leaks, or improper waste management	A Decommissioning Groundwater and Surface Water Management Plan (DGSWMP) will be developed to manage risks from contamination during the decommissioning phase. Pollution prevention measures (e.g., bunded storage areas for fuels/chemicals, spill kits) will be implemented and maintained. Refuelling and maintenance of machinery will be carried out in designated areas away from watercourses. Machinery and plant to be checked regularly for oil leaks. Wastewater and hazardous materials will be handled in compliance with prevailing regulations and removed by licensed contractors.	Routine inspections of spill response equipment. Incident reporting system for spills and leaks, with corrective actions recorded. Appropriate monitoring and sampling to be undertaken in accordance with GWSWMP.
Risk of flooding from extreme weather events	A Flood Warden will be appointed to monitor weather conditions, receive flood warnings, and co-ordinate site response actions. A Flood Warning and Evacuation Plan will be developed will be developed, outlining procedures for halting works, securing equipment, and evacuating workers during flood events.	Daily flood risk monitoring using weather forecasts and Environment Agency alerts.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
	Storage of materials and equipment will be planned to avoid flood-prone areas.	Post-incident assessments to review response effectiveness and update mitigation measures.
Increased flood risk due to removal of infrastructure and disturbance to drainage systems	Real-time vibration detection systems will be used adjacent to flood defence assets to ensure structural integrity remains within safe limits.	Environmental Manager to review system logs from vibration detection systems daily, with alerts triggered if pre-defined thresholds are exceeded. Regular inspections of drainage systems to ensure they remain operational. Post-decommissioning assessment to confirm drainage functionality.
	A Decommissioning Groundwater and Surface Water Management Plan (DGSWMP) will be developed to manage runoff and minimise flood risk. Existing drainage infrastructure (e.g., Sustainable Drainage Systems (SuDS), ditches, and swales) will be retained and maintained during decommissioning where feasible.	

Table 5-5: Summary of the decommissioning mitigation and management measures – Ground conditions

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Encountering unexpected contamination during decommissioning	An Unexpected Contamination Protocol will be in place to form part of, or accompany the DEMP, setting out procedures for assessment and remediation if contamination is identified. This will be as follows: 1. In the event that contaminated land is found at any time when carrying out the decommissioning of the Proposed Development, which was not previously identified in the environmental statement, then no further development (unless otherwise approved in writing by the relevant planning authority) shall be carried out within the identifiable perimeters of the area in which the suspected contamination is located. It must be reported as soon as reasonably practicable to the relevant planning authority, and where necessary, the Environment Agency, and the Applicant must complete a risk assessment of the contamination in consultation with the relevant planning authority, and where necessary, the Environment Agency. 2. Where the Applicant determines that it intends to continue to undertake development in the identifiable perimeters of the area in which the suspected contamination is located and the relevant planning authority (in consultation with the Environment Agency) determine that remediation of the contaminated land is necessary, a written scheme and programme for the remedial measures to be taken to render the land fit for its intended purpose must be submitted to and approved in writing by the relevant planning authority, following consultation with the Environment Agency. 3. Remediation must be carried out in accordance with the approved scheme under sub-paragraph (2). 4. Following the implementation of the remediation strategy approved under sub-paragraph (2), a verification report, based on the data collected as part of the remediation strategy and demonstrating the	Regular site inspections by the ECoW. Incident reporting and remediation records for unexpected contamination.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
	completion of the remediation measures must be produced and supplied to the relevant planning authority and the Environment Agency. Any contamination identified will be investigated and risk-assessed, with remediation strategies developed as required in accordance with best practice guidelines, including the requirements of Land Contamination Risk Management (LCRM) Guidance.. A watching brief will be maintained by an Environmental Clerk of Works (ECoW) for unexpected contamination.	
Disturbance of existing made ground and potential mobilisation of contaminants	Controlled excavation methods will be used to prevent unnecessary mobilisation of contaminants. Stockpiling of excavated materials will be in designated areas away from watercourses and sensitive receptors.	Monitoring of groundwater surface water quality and soils to detect any contamination during decommissioning.
Soil erosion, compaction, and loss of soil quality	Soil management measures in line with the principles of the approved Soil Management Plan for construction will be set out in the DEMP Best practice soil handling measures will be implemented, including phased stripping and temporary storage. Topsoil and subsoil layers will be stored separately, with handling minimised to prevent compaction. Site restoration will include reinstatement of soil profiles and reseeding with appropriate vegetation.	Soil condition assessments before and after decommissioning. Regular checks on soil storage areas to prevent degradation.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Generation of contaminated runoff and pollution of watercourses	An Environmental Incident Management and Pollution Prevention Plan will be implemented, including measures such as bunded fuel storage, spill kits, and designated refuelling areas. Surface water management controls, including silt fencing and sediment traps, will be used to prevent contaminated runoff. Regular maintenance of decommissioning machinery to minimise leaks or spills. A Decommissioning Groundwater and Surface Water Management Plan (DGSWMP) will be developed in consultation with the Local Planning Authority to manage risks from contamination during the decommissioning phase. Any major decommissioning works will be minimised during heavy precipitation and carried out during the dry months where possible. Dust suppression during dry and wind conditions, good housekeeping during decommissioning to reduce potential impacts of list, dust and debris generation pursuant to a Decommissioning Dust Management Plan.	Routine inspections of pollution prevention measures. Water quality monitoring programme to detect contaminants, to be undertaken in accordance with DGSWMP)

Table 5-6: Summary of the decommissioning mitigation and management measures – Cultural Heritage and Archaeology

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Impact to non-designated heritage assets	Any ventilation shafts (Asset 316 in **ES Vol 2 Appendix 11-2: Gazetteer of Heritage Assets and Events [EN010153/DR/6.2]**) which do not need to be lost / damaged to facilitate the construction of the Proposed Development will be retained and permanently fenced for the lifetime of the Proposed Development, to avoid damage from decommissioning activities.	Fencing to be monitored and repaired or reinstated if damaged or removed.

Table 5-7: Summary of the decommissioning mitigation and management measures – Tourism & Recreation

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Disruption to users of Public Rights of Way (PRoW) and National Cycle Network (NCN)	The final DEMP will include measures to ensure continued safe access for walkers, cyclists, and horse riders while minimising disruption of the PRoW as much as possible, in accordance with the principles established within the Public Rights of Way Management Plan from the construction phase. Temporary PRoW diversions will be clearly signposted, minimising inconvenience to users. Use of banksmen where PRoW and decommissioning traffic intersect to manage safety.	Regular monitoring of PRoW conditions and diversions. User feedback and complaint tracking to assess any issues with access.
Disturbance to leisure and recreation businesses near the site (e.g., outdoor activity providers, sailing clubs, rowing clubs, and model aircraft groups)	Advance stakeholder engagement with local businesses and recreational organisations to provide notice of decommissioning works and discuss any required adjustments. Noise and dust control measures (outlined in Table 5-9 and Table 5-10) will be implemented to limit impacts on nearby leisure activities.	Consultation records with local businesses and recreation groups. Monitoring of noise and dust emissions near key receptors.
Disruption to river traffic	At least 3 months' advance notice to be given to the recreational clubs (including Weaver Sailing and Ski Club and Frodsham Kayaking) on the River Weaver of any closure of the River Weaver required in relation to removing the overhead cabling across the river. Notices shall also be published in local newspapers and online community resources e.g. Frodsham Town Council newsletters of scheduled closures.	Ensure sufficient height clearance retained over River Weaver and monitor as required.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Disruption to water-based recreational users (e.g., kayaking, sailing, rowing)	There will be no restrictions on access to adjacent watercourses as part of the decommissioning process. Engagement will continue with organisations such as Weaver Sailing & Ski Club and Runcorn Rowing Club to ensure no adverse impacts on their activities.	Monitoring of any reported disruptions to water access. Feedback tracking from water-based recreation groups.

Table 5-8: Summary of the decommissioning mitigation and management measures – Traffic and Transport

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Increased traffic flows, including HGVs, on the roads leading to the site	A Decommissioning Traffic Management Plan (DTMP) will be prepared and will include measures to optimise vehicle movements and minimise unnecessary trips. Low-emission vehicles will be encouraged prioritising the best available vehicles at the time. The DTMP will describe measures to minimise the environmental and other potentially adverse impacts associated with the transport aspects of the decommissioning. This will include minimising the extent and duration of temporary road closures and closures of Public Rights of Way (PRoW).	The appointed contractor will undertake such monitoring as is necessary. Further details to be confirmed in the DTMP.
Severance and intimidation effects from decommissioning traffic	The final DEMP will include measures to maintain the safety of PRoW users while minimising disruption to PRoW as much as possible during decommissioning works.	The appointed contractor will undertake such monitoring as is necessary. Further details to be confirmed in the DEMP.
Access to Marsh Lock	The Applicant will liaise with the Canal and River Trust pre and during decommissioning to confirm vehicle numbers and any traffic measurement requirements on the access road to SPEN Frodsham Substation, ensuring that at all times access is able to be made to Marsh Lock.	The appointed contractor will undertake such monitoring as is necessary. Further details to be confirmed in the DEMP.

Table 5-9: Summary of the decommissioning mitigation and management measures – Noise and Vibration

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Impact of noise arising from decommissioning activities at noise sensitive receptors (NSR).	Work will be undertaken in accordance with a Decommissioning Noise Management Plan (DNMP), which will be prepared as part of, or to accompany the final DEMP. Best practical measures will be employed in accordance with BS5228-1:2009+A1:2014 (or any subsequent applicable and relevant standard) to control noise generation (e.g. using equipment that is regularly maintained, where practicable use equipment fitted with silencers or acoustic hoods).	
Impact of noise arising from decommissioning activities at ecological receptors.	Where considered necessary the decommissioning activities would be phased / timed to avoid / reduce effects on sensitive ecological receptors in accordance with the requirements of the Ecological Clerk of Works. A baseline noise survey would be conducted prior to decommissioning works to establish the potential for disturbance to the NBBMA and the Mersey Estuary SPA and Ramsar site. Based on prevailing best practice at the time, the necessary mitigation measures to avoid likely significant effects occurring on the Mersey Estuary SPA and Ramsar site would be determined and agreed with CWaCC. This may involve controls on the phasing and timing of decommissioning works, as well as specific measures to reduce noise impacts.	

Table 5-10: Summary of the decommissioning mitigation and management measures – Air Quality

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Dust generation from decommissioning activities (e.g., earthworks, dismantling, vehicle movements)	A Decommissioning Dust Management Plan (DDMP) will be prepared as part of, or to accompany, the final DEMP, in line with prevailing guidance on dust mitigation. Exposed soils and stockpiles will be damped down using water suppression where necessary. Drop heights will be minimised when handling materials to reduce dust emissions. Skips and enclosed chutes will be covered when handling waste.	A Decommissioning Dust Management Plan (DDMP) will be developed and agreed with appropriate stakeholders and form part of the DEMP. Compliance with measures to be regularly recorded via an appropriate method to be set out in the DEMP. A scheme of quantitative dust monitoring to be developed and agreed with appropriate stakeholders and set out in the DDMP.
	Other measures in relation to internal haulage movements will include: • provision of hardstanding finish or heavy-duty construction matting on temporary internal access roads; • regular compaction, grading and maintenance of on-site non-metalled internal haulage routes; • regular inspections of the Site access, other access points, crossing points and local access points; • provision and enforcement of internal site speed limit; • sheeting of all incoming / outgoing vehicles carrying loose loads; • provision of wheel cleaning facilities at appropriate locations before exit on the public highway.	
Impacts of gaseous emissions from use of on-site plant and	All Non-Road Mobile Machinery (NRMM) and decommissioning vehicles will comply with prevailing emission standards at the time of decommissioning.	Vehicle emission compliance checks.

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
non-road mobile machinery (NRMM)		

Table 5-11 Summary of the decommissioning mitigation and management measures – Waste

Potential Impact being managed / mitigated	Mitigation and/or management measure to be implemented	Requirement for monitoring
Generation of waste materials from decommissioning activities	A Decommissioning Waste Management Plan (DWMP) will be prepared as part of, or to accompany the final DEMP, setting out waste handling procedures. The waste hierarchy will be applied, prioritising waste prevention, reuse, and recycling before disposal. All waste will be transported by licensed waste carriers and disposed of at facilities with the necessary permits.	A waste register will be maintained, tracking all waste streams, quantities, and destinations.
Contamination risks from improper waste handling (e.g., hazardous waste, chemicals, and oils)	Hazardous waste (e.g., oils, batteries) will be segregated and stored in designated secure containers. Spill response procedures will be in place to manage accidental releases. All hazardous waste will be removed by licensed contractors, in accordance with prevailing waste regulations at the time of decommissioning.	Regular site inspections to verify compliance with hazardous waste handling procedures.
End-of-life waste from solar panels and battery storage systems	Solar panels will be dismantled and sent to specialist PV recycling facilities, where materials such as silicon cells, polymers, and metals will be recovered. Battery Energy Storage Systems (BESS) will be refurbished, repurposed, or recycled where feasible, reducing disposal requirements. Transformers and inverters will be either reused or sent for metal recovery at authorised recycling facilities. Cabling will be either reused or sent for recovery at authorised recycling facilities.	Documentation of panel and battery disposal or repurposing. Periodic review of emerging recycling technologies to maximise material recovery.

6.0 IMPLEMENTATION OF MANAGEMENT PLAN

6.1.1 The final DEMP will define all responsibilities roles and actions required for implementation of the measures that are set out in this oDEMP. These will include as a minimum:

v) The team roles and responsibilities, and the named individuals fulfilling those roles. An organogram and contact directory will also be included;
vi) The procedures required for monitoring, inspection and reporting of site operations;
vii) Document control systems and procedures;
viii) Details of the communication strategy (stakeholders and third party);
ix) Details of the required training for key personnel on environmental topics relevant to the Proposed development and final DEMP. This will include details on toolbox talks and on-site briefings required to ensure that relevant staff and Site Operatives are aware of the requirements for environmental control and procedures for the same, and that they have the required level of knowledge to deliver them;
x) Details of measures to ensure that staff and personnel are advised of changes to circumstances as work progresses on decommissioning the Proposed Development; and
xi) Procedures for environmental emergencies.

7.0 MONITORING AND MAINTENANCE

7.1 Monitoring

7.1.1 To ensure and demonstrate compliance with the measures set out in the final DEMP, monitoring and reporting will take place throughout the decommissioning phase of the Proposed Development. This process will also include oversight of the resulting reporting to ensure that corrective action is taken where necessary. Details of monitoring, inspection and audits to be undertaken will be provided in the final DEMP.

7.1.2 The Environmental Manager will regularly observe site activities and in particular will attend when new activities first occur, to ensure compliance with the final DEMP, raise deviations where they occur, and to monitor actions and conditions on the site. They will also undertake regular walkover surveys of the site to monitor compliance with the final DEMP. They will also undertake regular inspections as required by the final DEMP and overall audits of the DEMP to ensure compliance with its requirements. They will also meet regularly with the Site Manager to discuss the decommissioning of the Proposed Development and any issues arising from that or their inspection/monitoring activities. They will also undertake day-to-day contact with relevant local authorities and other regulatory agencies such as the Environment Agency.

7.1.3 All activities observed by the Environmental Manager, the results of surveys and inspections undertaken by them, and reports produced by them will be documented and logged in a logbook available for inspection on request by the Local Planning Authority.

7.1.4 Where complaints are received from members of the public these will be logged by the Site Manager in a record keeping system. These logs will include details of the complaint, and actions arising from the same.

7.1.5 Similarly, where matters or complaints are raised by the CLG, these will be logged by the Community Liaison Officer in a record keeping system. These

logs will include details of the matter/complaint, and actions arising from the same.

7.1.6 All complaints will be reviewed by the Site Manager, Community Liaison Officer, and Environmental Manager, and the result of the review and any corrective actions taken will be logged. The Complaints Log will be reviewed by the Site Manager for signs of wider on-going issues, and where these are identified corrective action will be taken.

7.2 Record keeping

7.2.1 A Quality and Safety Management Systems (QMS) and Environmental Management System (EMS) will be provided. These will be certified in line with the ISO 14001 standards (or any equivalent standard in place during the decommissioning phase).

7.2.2 Those systems will ensure that records are kept of monitoring, recording, and implementing of environmental management measures for the Proposed Development. This is vital to ensuring that the Proposed Development is delivered with a high standard of environmental control throughout the decommissioning phase, and that corrective actions are undertaken.

7.2.3 A central record keeping system will be established (by the Quality Manager, or a suitable person with delegated responsibility for the same) which will provide a repository for procedures, checklists, reports and other such measures required for the EMS and QMS. This will include maintaining records of inspections, audits, or other such activity undertaken by internal or external parties undertaking audit of the DEMP and measures therein. These would include the following records as a minimum:

i) Licences, approvals, and other similar regulatory documentation;
ii) Environmental surveys;
iii) Environmental equipment test records;
iv) Records of routine site inspections; and

v) Details of incidents, breaches of the final DEMP, or complaints from third parties, and corrective action taken in respect of the same.

7.2.4 A full review of the final DEMP will be undertaken at regular intervals and as required to respond to specific issues that may arise. Where a review identifies an issue that requires additional control measures or mitigation be added to the final DEMP, or amendment to an existing control measure or mitigation, then these changes will be made only after the agreement of Cheshire West and Chester Council has been obtained, in consultation with the Environment Agency and National Highways.

7.2.5 The records held in respect of the final DEMP will be made available for the purposes of monitoring compliance with the final DEMP where a request is made by Cheshire West and Chester Council and if necessary, by the Environment Agency.

8.0 REFERENCES

[i] HMSO (2017). Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Available at: https://www.legislation.gov.uk/uksi/2017/572 [Last Accessed: 17 September 2024]

[ii] HMSO (2015). The Construction (Design and Management) Regulations 2015. Available at: https://www.legislation.gov.uk/uksi/2015/51 [Last Accessed: 17 September 2024]

[iii] HMSO (2011). Waste (England and Wales) Regulations 2011. Available at: https://www.legislation.gov.uk/uksi/2011/988 [Last Accessed: 17 September 2024]