



Kirkby Battery Storage Facility

Construction Environment Management Plan

Prepared for



Pelagic Energy

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Well House Barns, Chester Road, Bretton, Chester, CH4 0DH

Camelia House, 76 Water Lane, Wilmslow, Cheshire, SK9 5BB

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

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1.0 INTRODUCTION AND PROJECT DESCRIPTION

1.1 Introduction

- 1.1.1 Axis has been commissioned by Pelagic Energy to prepare this Construction Environment Management Plan ('CEMP') for the consented Kirkby Battery Energy Storage System ('BESS') scheme. The Kirkby BESS scheme is located on land at Coopers Lane, Knowsley Industrial Park, Kirkby, Knowsley, L33 7TT ('the site').

1.2 Project Description

- 1.2.1 Planning permission was granted on 30th April 2024 for the Kirkby BESS (planning application reference 23/02008/FUL).
- 1.2.2 The Kirkby BESS will be capable of importing (storing) electricity from the grid at times of excess supply in the system and exporting it back to the grid at times of high demand/reduced generation capacity. It will provide grid balancing services to National Grid and help support efforts to reach net zero.

1.3 CEMP Planning Condition

- 1.3.1 Planning condition 7 of the Kirkby BESS permission requires a CEMP for the scheme to be submitted and approved by Knowsley Council:

Condition 7

Prior to commencement of development a Construction Environment Management Plan, including Pollution Risk Assessment and Method Statements, shall be submitted to, and agreed in writing by the Local Planning Authority that details the means of mitigation of construction effects. This shall include but not be limited to the following:

- a) Layout of the site compound including identification of areas for the storage of plant and materials, loading/unloading and turning areas for delivery vehicles [for each phase as necessary];*
- b) Management of deliveries including prevention of waiting/layover of construction related traffic on the highway, measures for the control of traffic to and from the site and consideration of any temporary traffic management arrangements which may be necessary during periods of*

construction. Note reversing on the highway is not permitted without a trained Banksman (RoSPA or equivalent);

- c) Construction staff parking arrangements.*
- d) Control of transfer of mud out of the site - details of wheel washing facilities including location and type.*
- e) Methods for dust control and suppression.*
- f) A programme of works including phasing, if applicable.*
- g) Details of proposed temporary highway modifications to facilitate access into the site by construction vehicles, including adequate provision for addressing any abnormal wear and tear to the highway, if applicable.*
- h) Methods for the mitigation of noise and vibration from building works, including any piling works, and also from the operation of any temporary power generation or pumping plant which will operate overnight.*
- i) Protection of Surface and groundwater resources.*
- j) Best Practice on the use and storage of fuels, oils and chemicals, to remove the risk of causing pollution during construction; and*
- k) A scheme for recycling/disposing of waste resulting from demolition and construction works.*

All site works shall then be carried out in accordance with the approved Plan unless otherwise agreed in writing beforehand with the Local Planning Authority.

1.4 Existing Site Location

- 1.4.1 The site lies to the east of Coopers Lane, Kirkby and approximately 1.5km north of Knowsley. The existing site is identified on Figure 1 below.

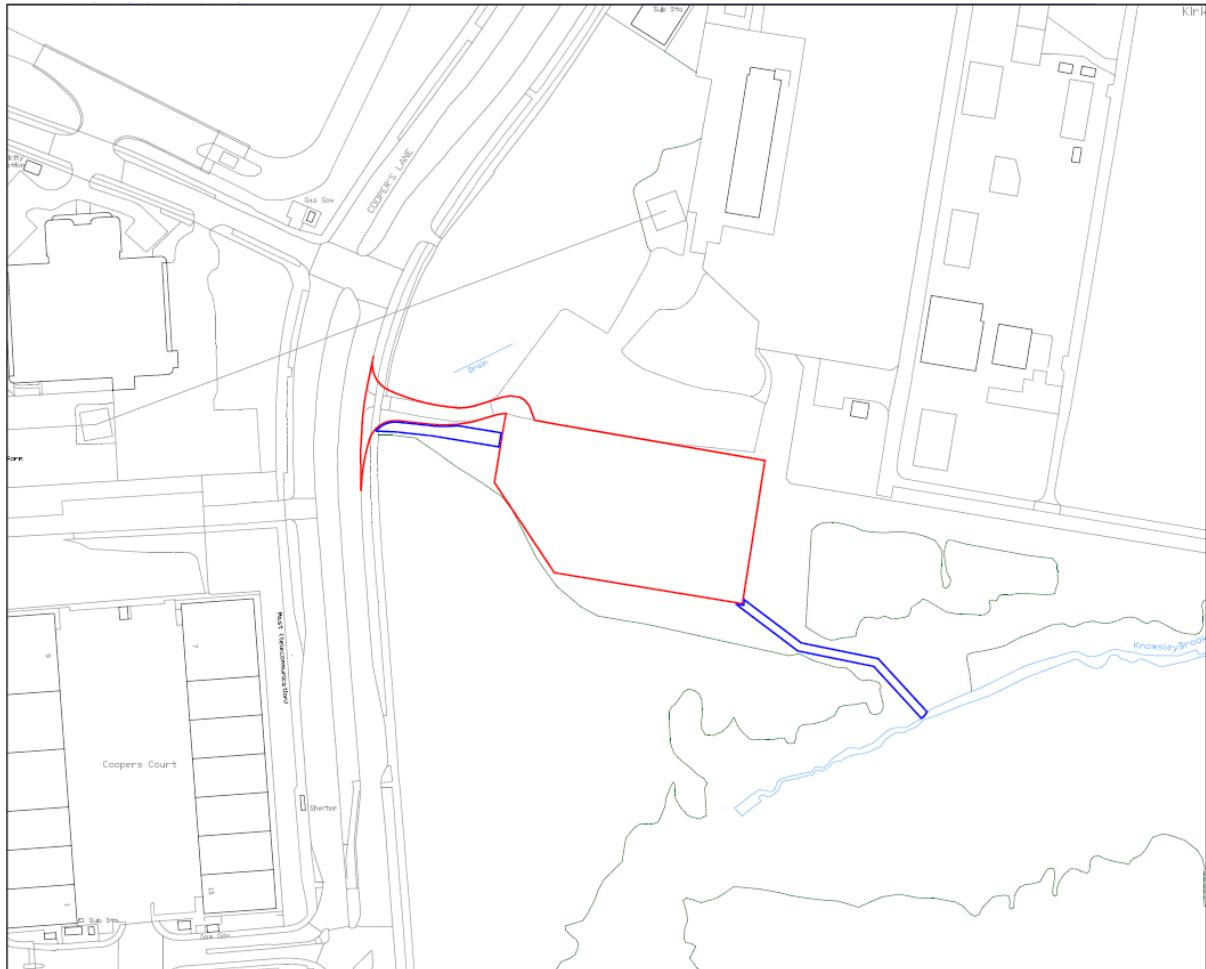


Figure 1: Existing Site Location

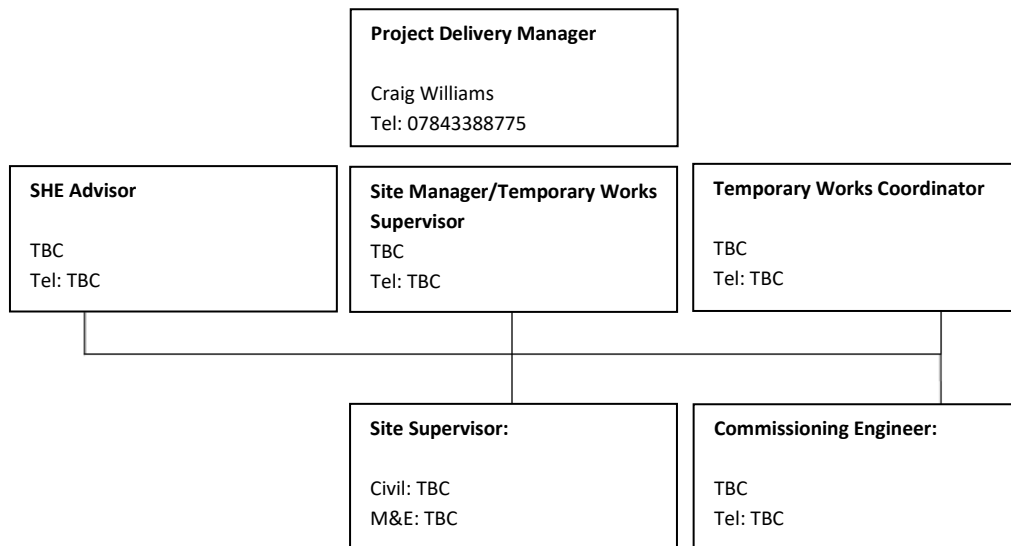


(Google Maps, 2024)

2.0 SITE MANAGEMENT STRUCTURE

2.1 PMO Structure

2.1.1 The Construction Contractor (which for the purpose of this CEMP has been assumed to be GTDS / Constantine) shall operate a Project Management Organisational structure on the Kirkby BESS project as follows:



Site Manager & Principal Contractor Representative – TBC

2.1.2 The Site Manager shall be responsible for the following health and safety matters on site but may delegate any or all of these to the SHE Advisor as appropriate.

- Maintain, monitor, and implement the Construction Phase Health, Safety and Environmental Plan, including its development to include emerging issues, in liaison with the Project Manager and SHESQ Manager.
- Ensure the access gate is locked at all times and no unauthorised access to site is permitted and maintain a site Attendance log.
- Ensure all site operatives and visitors receive a site induction briefing.
- Develop the emergency plan. Display the plan and provide the contractor with a copy. Implement the plan, test and review periodically and update as the need arises. Record the test results.
- Advise the SHESQ Manager and the Project Manager of any incident or near miss.
- The contractor verbal reporting process MUST be followed initially.

- Report accidents, incidents and near misses to the reporting system and assist with any investigations into causes and provide reports to contractor with recommendations to prevent any recurrence such that incidents can be closed out.
- Elevate any safety issues to the Project and SHESQ Management functions.
- Provide information to the Engineering Function to enable the project drawings to be updated.
- Ensure the F10 is prominently displayed in the site office.
- Chair and minute weekly co-ordination and HS&E meetings.
- Co-ordinate the contractor's activities on site.
- Ensure compliance with the QHS&E management system.
- Ensure compliance with client Safety Rules as appropriate.
- Liaise with others as appropriate.
- Establish and maintain a register of Risk Assessments and Method Statements.
- Rigorously review Risk Assessments and Method Statements to ensure safe systems of work are both appropriate and effective and hence allow activities to be undertaken safely. Reference should be made to product specialists for technical input.
- Ensure compliance with Method Statements and communicate the need for amendment as the need arises.
- Receive, review and record reports and inspections of lifting equipment and accessories, plant and equipment, scaffolding, excavation and contractors training qualifications and competency details.
- Receive, review and record waste transfer documentation and issue quarterly waste log to the client.
- Develop the Site Hazard Plan
- Develop an Environmental Emergency Response Plan. Implement the plan, monitor and review periodically and amend as the need arises.
- Ensure adequate facilities are on site for the containment of substances hazardous to the environment (e.g., spill kits, drip trays, integral bunded fuel storage facilities etc.).
- Develop a Traffic Management Plan. Implement the plan, monitor and review periodically and amend as the need arises.
- Carry out daily HS&E tours and or safety walks.

- Carry out and formally record weekly site HS&E walk.

Project Management – TBC

2.1.3 Responsible for ensuring that:

- Up-to-date information is made available to the Site Manager.
- Regular and effective communication is maintained with the Site Manager.
- Change control procedures are carried out and that changes are communicated to all interested parties.
- Appointed contractors including designers have been selected with due regard to Health, Safety and Environmental considerations and that they are issued with this Health, Safety and Environmental Plan as well as other related HS&E documentation.
- Information is provided for inclusion into the Health and Safety File.
- Ensure that the flow of health and safety information between client, designers and contractors is effectively managed.
- Co-ordinate design works, planning and other preparation for construction where relevant to health and safety.

Lead Commissioning Engineer –TBC

2.1.4 Responsible for ensuring that: -

- Site commissioning activities of all the commissioning engineers is coordinated.
- Commissioning is carried out safely and in line with Risk Assessments and Method Statements.
- Commissioning is undertaken in accordance with the GTDS Permit for Low Voltage work or client safety rules as appropriate.

Temporary Works Coordinator – TBC

- Review the Schedule of Temporary Works Designs on a regular basis (Monthly or as required) and revise and issue as necessary to the Project Design Engineer (PDE) and other involved personnel and parties.

- Forward all design briefs to the PDE ensuring completeness of brief; and approval.
- Ensure temporary works designs are approved prior to the commencement of the works.
- Ensure design information is sufficient and clear enough for construction to proceed.

Temporary Works Supervisors – TBC

- Ensure temporary works are installed in accordance with the design requirements.
- Ensure temporary works have been inspected and deemed satisfactory to load prior to loading.
- Ensure temporary works are dismantled in accordance with the design requirements.

Supervisor (s) – TBC

2.1.5 Responsible for ensuring that:

- All working party members have been briefed on the contents of the Risk Assessment and Method Statement and have signed to acknowledge their understanding of the safe system of work.
- Work is undertaken in compliance with the documented safe system of work.
- The task is stopped when any deviation from the safe system of work is observed and immediately to the Site Manager.
- The task is stopped when circumstances do not allow compliance with the documented safe system of work and immediately to the GTDS Site Manager.
- An adequate number of operatives are available to perform the task safely.

3.0 DESCRIPTION OF WORKS

3.1 Main Work Elements

3.1.1 Detailed works programmes and works descriptions have not yet been set out for the scheme and it is anticipated that these will follow once the Construction Contractor has been mobilised to commence the works. Furthermore, at time of writing, the scheme is undergoing the detailed design phase and amendments are anticipated to be made to the site layout. Accordingly, details of works will be influenced by these design changes. The CEMP shall be updated to incorporate these details as and when they become known.

3.1.2 The site works will consist of design and construction work associated with the BESS site. The key elements of this will include:

- Construction of civil structures/bases and systems to accommodate the battery subsystems;
- Cable troughs for all the main 33kV and 415v power cables;
- Offloading and positioning the battery modules;
- Offloading and positioning the power skids (Power Conversion Systems);
- Offloading and positioning the switchgear building and control building;
- HV and LV cabling;
- Construction of the access road; and
- Fence installation.

3.2 Storage of Plant and Materials

3.2.1 The Site Manager shall allocate each contractor an adequate area for storage of material and equipment (locations indicatively shown on the Indicative Construction Layout Plan at Appendix A). These storage areas shall be kept safe, clean and tidy with all material, plant, equipment and tools etc. being securely stored.

3.2.2 Advance notification of materials and equipment to be delivered to site shall be provided to the Site Manager 2 weeks prior to the intended arrival date. This notification shall include details of the company, the date and time of the delivery, the type and size of the vehicle, and an itemised list of material or equipment.

-
- 3.2.3 Gas bottles not in use must be stored in a lockable cage and sited in a safe area. Flammable materials shall be store with due regard to fire risks. Highly flammable liquids and liquefied petroleum gases shall not be allowed into the substation/site without the express permission of the Site Manager, who, where such permission is given, will specify the storage requirements and fire precautions to be enforced.
- 3.2.4 Materials must not be stored within 2 metres from the perimeter fence.
- 3.2.5 Hazardous materials or substances shall be subject to strict controls regarding handling, storage, transport and use. The Site Manager shall maintain an up-to-date COSHH register, to record a site inventory of hazardous materials held on site. Appropriate COSHH cabinets or storerooms shall be used to ensure safe storage of hazardous materials. Handling and use of hazardous substances shall be in compliance with contractors COSHH assessments. A complete portfolio of safety data sheets shall be held, in respect of each hazardous material or substance held on site by the Site Manager.
- 3.2.6 Flammable storage / pressurised gas bottle containers will be provided on site.
- 3.2.7 No bonfires are permitted on site during construction works.

4.0 PROGRAMME OF WORKS

4.1 Construction Phasing

- 4.1.1 The construction program for the Kirkby BESS is anticipated to take approximately 30 weeks. As discussed previously, a detailed program of works is to be set out within further versions / updates to this CEMP. The construction program will be carried out over three broad phases:

Phase 1: Enabling Works. Initial site clearance including laying of permeable geotechnical membrane, such as Terram. The permeable hard surfacing and access track would then be built up on top of this membrane using hardcore aggregates;

Phase 2: Main Construction Phase. Laying of support foundations and installation of the containers, which are pre-fabricated off-site and delivered as complete units; installation of the energy related components (e.g. transformers, inverters, switchgear etc), which would also arrive at the Site pre-fabricated; and

Phase 3: Finishing Phase. Installation of fencing, completion of all electrical engineering connections and remedial landscaping works.

- 4.1.2 The table below sets out the programme details (dates to be inserted when known in updated versions of the CEMP).

Milestone	Target Date
First Access to Clients BESS Site	Tbc
BESS Design Approval	Tbc
BESS site ready to receive delivery of BESS equipment	Tbc
User Works Completed to Facilitate Commissioning Programme	Tbc
Commencement of Commissioning Programme	Tbc
Indicated Energisation Outage	Tbc
Completion of Commissioning & Energisation	Tbc
Demobilisation	Tbc

4.2 Construction Site Layout

4.2.1 An Indicative Construction Layout Plan is provided at Appendix A to this CEMP. The plan sets out the likely temporary construction areas for the development. These will sit within the approved application boundary. Accordingly, these areas and the associated activities can be carried out under permitted development rights. The areas as shown on the plan include for:

- Site contractor parking;
- Construction material laydown and storage (also where loading and unloading of materials will take place);
- Site office area and welfare facilities; and
- Wheel washing facilities.

4.2.2 The CEMP is a working document and these broadly drawn construction areas may be required to alter to suit the needs of construction teams (once mobilised).

4.2.3 The temporary construction areas shall be removed following completion of the construction phase and either returned to their existing condition or incorporated into the approved planning drawing layouts.

4.3 Construction Site Access Arrangements

4.3.1 The site shall be accessed during construction works via the existing entrance to the site off Coopers Lane (A5208).

4.3.2 The site entrance will need to be widened in order to accommodate the HGVs accessing the site and this would be on a permanent rather than temporary basis.

4.4 Construction Traffic Route and Signage

4.4.1 Appropriate signage shall be erected to clearly direct construction drivers to the site entrance. The signs will also make other road users aware of the construction traffic site entrance. All signs associated with the site shall be kept clean, legible, and free from overgrown vegetation.

- 4.4.2 The entrance to the site taken from the A5208 will be marked by a 'Site Entrance' sign as per the below image, or similar.



- 4.4.3 It is not anticipated that further temporary signage or lights will need to be erected, other than site entry signage.
- 4.4.4 All construction vehicle drivers shall be made aware of the proposed route they are required to take to the site. It is anticipated that all HGVs and the majority of other construction vehicle movements shall gain access to the site via the A580 to the south.
- 4.4.5 Figure 2 below illustrates the main access route to and from the site for construction traffic.



Figure 2: Main Site Access Route for Construction Traffic

4.5 Construction Hours

4.5.1 Construction operations shall generally be limited to the hours of:

- 08:00 - 18:00 Monday to Friday
- 08:00 - 13:00 on Saturdays
- No works to be carried out on Sundays or Bank Holidays

4.5.2 Any construction activities required outside of these hours will require prior approval from Knowsley Council.

5.0 ENVIRONMENTAL MANAGEMENT

5.1 Overview

- 5.1.1 Good practice measures shall be followed during the construction works to ensure that impacts on the environment are minimised. Specific environmental management measures are set out in the following sections.

5.2 Protection of Water Resources

- 5.2.1 Measures need to be put in place to protect the water environment during the construction period from pollution and other adverse impacts, including changes to flow volume, water levels and quality.

- 5.2.2 The water environment relative to the Site comprises of:

- Knowsley Brook; and
- Surface and Groundwaters.

- 5.2.3 Rainfall and associated surface water run-off during construction works can mobilise and transport pollutants such as sediments, oils, chemicals and other building materials into the water environment, causing harm to plants and animals. Pollution from sediment and other pollutants can come from a number of sources on construction site, these include:

- Direct disturbance of the river bank
- Run-off from exposed ground and material stockpiles
- Run-off from roads
- Wheel washing areas

- 5.2.4 Due to the relatively short construction period (circa 30 weeks) and the low intensity of construction activities anticipated on the Site (due to most components being fabricated offsite), the opportunity for pollutants to enter the surrounding environment will be limited.

- 5.2.5 Nevertheless, good practice guidance measures are to be taken during the construction phase to ensure that potential pollutant pathways are avoided and that

resultant negative impacts do not occur in the local water environment. Further measures to achieve this will be:

- Wheel washing facilities will be located away from water courses to avoid silts and other materials entering the water environment.
- Visual inspections of potential pollutant pathways into the water environment will be carried out by the site Management Team over the course of the construction period.
- Washing out concrete mixers / plant etc will be undertaken using a controlled washout system which can remove suspended solids and neutralise the pH. This will provide treatment of the water to ensure that the pH has been corrected and all fine particles are removed.
- Stockpiled material will be stored away from drainage systems and watercourses to avoid run-off into such locations.
- Construction vehicles will not be parked nearby to watercourses to avoid petrol/oil pollution run off.
- Any and all hazardous substances will be stored within impermeable, bunded areas/containers, to remove risk of migration to groundwater or to the nearby watercourse/canal.

5.2.6 These proposed measures will assist in avoiding or minimising the potential for contaminants and suspended solids to migrate to surface and groundwater and protect water quality of the nearby river and the ecosystem which it supports.

5.3 Noise and Vibration Levels

- 5.3.1 Construction related noise shall be reduced wherever possible through choice of machinery, ensuring machinery is maintained correctly and ensuring it is switched off when not in use.
- 5.3.2 Construction deliveries will be kept to within normal working hours (as set out under section 4.5).
- 5.3.3 Vehicles used regularly on site, for example forklift trucks / JCB's / MEWPs, must have white noise / broadband reversing alarms fitted.

- 5.3.4 In all other cases, good practice measures shall be employed to minimise noise during working hours. This includes the following:
- i) not slamming vehicle doors;
 - ii) not shouting during early hours of the morning;
 - iii) where possible, situating amenity areas away from receptor directions; and
 - iv) care taken when loading/unloading materials and plant and minimise drop heights.
- 5.3.5 Operatives exposed to noise will wear suitable hearing protection in line with the Control of Noise Regulations.
- 5.3.6 The construction site shall operate under restricted working hours to mitigate noise in evenings / night and at weekends, as set out in Section 4.5 of the CMP.
- 5.3.7 It is not anticipated that any engineering works associated with the construction will cause significant vibrations offsite. As such, monitoring will not be required.
- 5.3.8 No piling works are anticipated to take place during the construction period.
- 5.3.9 Although not anticipated to be required, no overnight generators shall be used overnight during the construction works.

5.4 Dust Nuisance

- 5.4.1 The generation of dust outside of the site boundary is a potential source of statutory nuisance and can lead to complaints being received. Dust can also have an impact on human health and local ecology.
- 5.4.2 Good environmental practices shall be deployed to control dust emissions and mitigate against any nuisance problems arising. This includes:
- Dampening access roads and areas within the site during warm / dry weather to reduce dust and particulates becoming air-bound. A bowser stored on site and transported to where needed via site plant / a HGV would likely be used to spray necessary surfaces.
 - Wheel washing facilities onsite would be utilised to minimise the transfer of soil onto the local road network. The anticipated wheel washing facilities would

consist of either a drive-over ramp system or jet spray, depending on the site ground conditions (i.e. if mud is wet it can usually be jet sprayed off, but if it 'clings' to wheels, a ramp system may be required). Hence, the chosen method used would be dependant on the site conditions and the most efficient method would be used. The wheel washing facilities would be located as shown on the Indicative Construction Layout Plan (see Appendix A).

- Use of sheeting to cover soil mounds.
- Cutting or grinding of materials on site, with the potential to cause dust, shall be done whilst using an effective water suppression system.

5.5 Lighting

5.5.1 Construction works will typically be undertaken in daylight hours and therefore would not routinely require artificial illumination; however lighting may be required for certain tasks or during winter months. There is the potential for poorly aimed or controlled lighting to cause environmental pollution.

5.5.2 All lighting on site during the construction period will be kept to a minimum (whilst ensuring safety or workers is achieved / security of site). Lighting installed on site during construction will be downward facing to avoid excess spill into the surrounding environment.

5.5.3 The lighting design shall incorporate the following measures to minimise impacts on bats and other nocturnal wildlife:

- Light spill beyond the site boundary to be avoided where reasonably practicable, including through the use of cowls/ hoods where appropriate.
- All lighting to be directed away from boundary habitats, mature trees and woodland areas.
- Where used lighting should be task specific (i.e., general site lighting should be avoided where reasonably practicable).

5.6 Energy Usage

5.6.1 Best practice measures shall be followed to reduce energy usage on site (e.g. turning off lights and site equipment when not in use). Car sharing will be encouraged where the potential to do so.

5.7 Sustainability

- 5.7.1 Sustainability is a core metric which Pelagic Energy works on with their contractors. All practical measures to reduce road mileage, re-use materials, recycle waste, and operate using sustainable practices will be employed during the construction works. In addition, the following measures shall be taken.

Locally Sourced Resources

- 5.7.2 Wherever possible, sustainably sourced construction materials and practices shall be utilised. This includes sourcing materials and work forces locally (where practical to do so).

Freight Consolidation

- 5.7.3 Where practical to do so, site delivery vehicles will also serve to remove waste / recyclable products from the site (e.g. utilising empty wagons that have delivered stone to take away excavated soils).

5.8 Pollution Prevention Plan

- 5.8.1 The measures set out below address the potential pollutant pathways during construction works. Related measures are described within section 5.9 regarding the site Waste Management Plan.

Air Emissions

- 5.8.2 Polluting emissions from plant on site (SO₂, NO_x) are considered to be in insufficient quantities to have a measurable adverse air quality impact. Plant will be inspected regularly and maintained in line with the manufacturers' instructions. Should any exhaust emissions be deemed smoky, the machine will be removed from service; the machine will only be reintroduced into service following a satisfactory repair.

Spillages

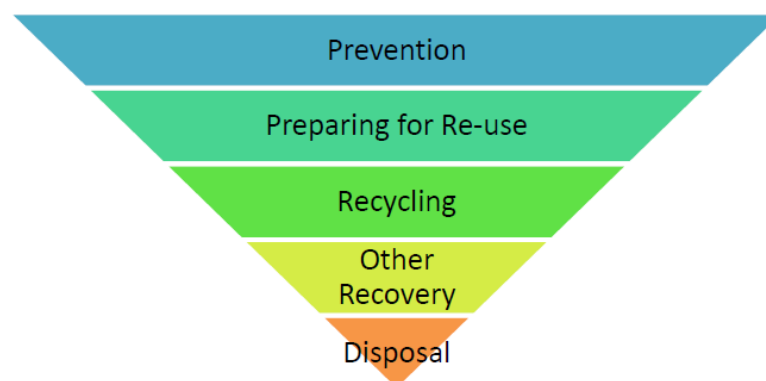
- 5.8.3 Any chemical / fuel spillages on site shall be cleared using appropriate spill kits to prevent pollutants entering the local environment. Appropriate bunding around stored chemicals / fuels shall be utilised where necessary.

Pollution Prevention of Drainage Discharge during Operation

- 5.8.4 Whilst not relevant to the construction phase, control measures have been prescribed within the drainage strategy for the development to minimise potential pollutant pathways from the Site to the Brook. These, as set out in the scheme's drainage strategy, include; porous surfacing (such as permeable gravel) which are good at capturing silt, oils and other impurities, and a hydrocarbon removal system, which by itself is capable of removing 95% of pollutants.

5.9 Waste Management Plan

- 5.9.1 A Waste Management Plan will be adopted for the construction works. The key controls and processes are set out below. The Waste Management Plan will be used to manage materials efficiently and reduce the amount of waste disposed of to landfill by identifying opportunities to reduce, re-use and recycle. Waste management will follow the hierarchy shown below:



- 5.9.2 All waste produced at the Site will be managed in accordance with the company's waste handling procedures. Where appropriate, waste will be segregated in suitable and clearly identified containers / skips. Where possible, a waste collection area shall be established with due consideration given to access / egress of collection vehicles, possible contamination of adjacent watercourses etc.
- 5.9.3 All waste with the potential to leach (e.g. general, waste oil, waste water) shall be held on a nonpermeable base, and at least 10m away from surface drains. All chemical storage will follow the 10m rule from surface water drains.
- 5.9.4 Transfer notes will be stored on site along with any permits.

- 5.9.5 Records of Waste Carriers Registration Certificate, Waste Disposal Site licenses and limitations on type and quantities of waste shall be available from Head Office on request. A report will be run each month via Head Office to record all site skip empties, if any other waste is removed from site, the site manager / supervisor shall send a copy of all paperwork to the Head office for record purposes.
- 5.9.6 A contractor such as GTDS would fully comply with the requirements of the National Grid SCIP system, and input all waste removals, aggregate deliveries, re-used materials, energy and water usage, deliveries of diesel and fuels. All appropriate entries are supported by a waste transfer note or delivery note.
- 5.9.7 In September 2016 products containing Hexabromocyclododecane (HBCD). Regulation (EU) 2016/460 came into force and all products containing HBC should not be landfilled or recycled. This applies to material containing >1000mg/kg. HBCD can be found in a range of Extruded Polystyrene (EPS) and Expanded Polystyrene (XPS) products including insulation boards and blocks. Waste should be destroyed in accordance with the Persistent Organic Pollutants Regulations 2007.
- 5.9.8 Further information on the disposal requirement can be found at <https://www.gov.uk/guidance/disposal-of-waste-containing-persistent-organic-pollutants-pops>

Waste Movement and Monitoring

- 5.9.9 All waste removed from site will be covered by a Waste Transfer Note or Hazardous waste Consignment Note containing all the legally required information, including the correct waste code. The waste Transfer Notes for general waste will be kept for three years plus the current year.

Waste Carriers

- 5.9.10 All waste will be transported using registered waste carriers and will be disposed of at licensed waste disposal sites or in accordance with a valid Environmental Permit (formally Waste Exemption). All Waste Carrier Licences and all Waste Management Licences / Permits are valid and appropriate, shall be available within the site environmental file.

Waste Disposal Sites

- 5.9.11 Only Waste Disposal Sites and Waste Transfer Stations that hold a valid Waste Management Licence or Permit (formerly Exemption) will be used.

Waste Reporting

- 5.9.12 The Waste Coordinator for the Site will summarise the waste report and review every three months against performance, waste forecast and to identify opportunities for improvement.

Waste Transfer Training

- 5.9.13 The contractor's Environmental Advisor will conduct waste training to all relevant staff as required. This will be dependent upon the individual's job function. Examples of waste related training that may be provided include:
- 5.9.14 Copies of the Toolbox Talk Register forms will be held at the site office and to the contractor's Training Department.
- 5.9.15 In addition, as legislation changes, specific Environmental Bulletins will be produced and issued to relevant staff.
- 5.9.16 A copy of the Site Waste Management Plan comprising of a waste forecast and the quarterly Waste Returns Report will be retained for three years after the completion of the works.

5.10 Water Vole RAMS

- 5.10.1 The BESS development includes A drainage route which will discharge surface waters from the site to Knowsley Brook. Merseyside Environmental Advisory Service (MEAS) has noted that sections of Knowsley Brooke are designated a local wildlife site for water vole (approx. 1.15km south-west of the Site). Accordingly, water bowl reasonable avoidance measures have been prescribed within Appendix B of this CEMP. The measures include a pre-construction check of Knowsley Brook by an experienced Ecologist.

5.11 Breeding Birds and Hedgehog RAMS

- 5.11.1 MEAS have requested reasonable avoidance measures for both nesting birds and hedgehogs. These have been prescribed within Appendix C of this CEMP.

5.12 Riparian Mammals Ecological Technical Note

- 5.12.1 MEAS have also sought that impacts are considered in the CEMP of construction of the Development on riparian mammals that may be using the Knowsley Brook and adjacent habitats. A separate 'Technical Note' has been provided in Appendix D which addresses these and shall be followed by site contractors.

6.0 COMPLAINTS PROCEDURE

- 6.1.1 It is important that members of the public or interested parties are able to make valid complaints about the construction works. Such complaints can provide a valuable feedback mechanism which could help reduce potential impacts on sensitive features and also allow the construction techniques to be refined and improved.
- 6.1.2 Contact details shall be placed at the entrance to the construction site to allow complainants to contact the site management team.
- 6.1.3 Any other complaints made by members of the public regarding construction activities will be reported in the first instance to the site management team. Complaints shall be reviewed and documented appropriately within a logbook.
- 6.1.4 The site manager shall instruct corrective / mitigation actions if required.

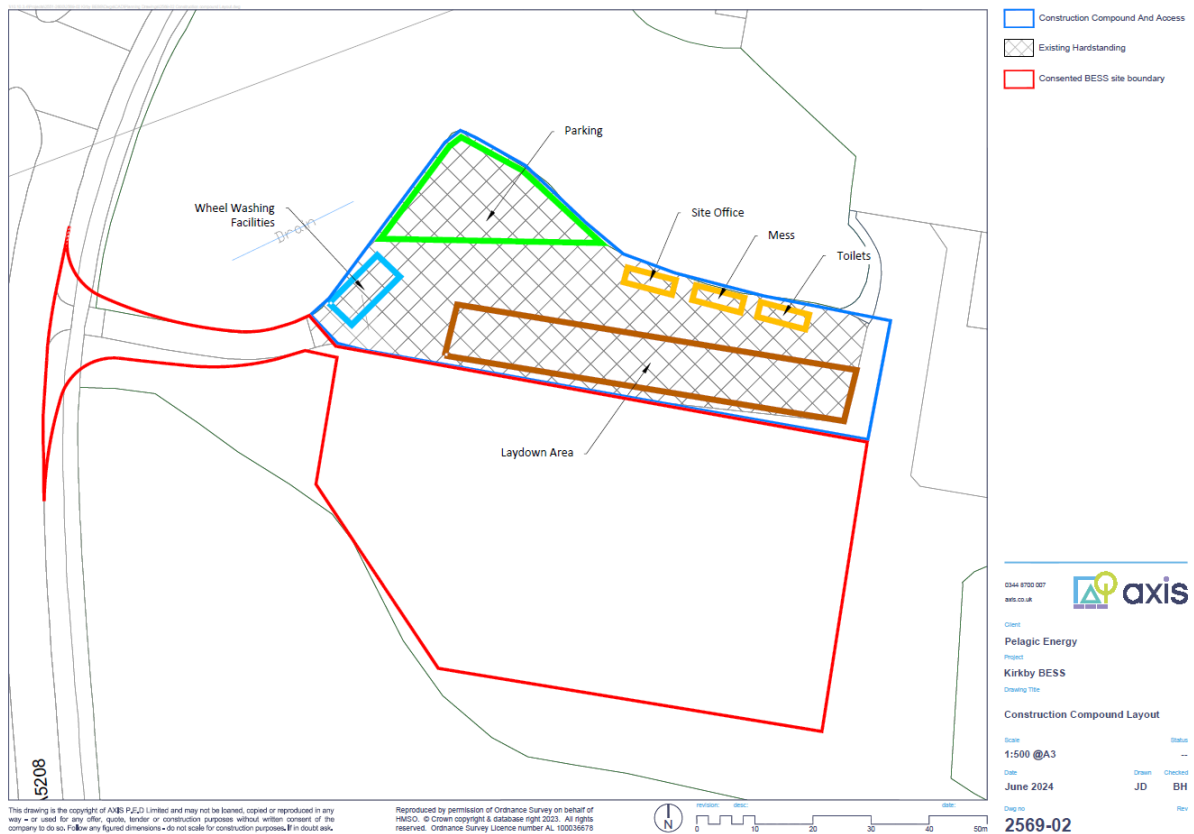
Site manager: Craig Williams (Constantine Energy Storage)

Contact: 07843388775 / craig@constantineenergystorage.com

7.0 NEIGHBOURHOOD LETTER DROP

- 7.1.1 It is important that local communities are kept informed about construction works which may affect them, to enable a level of transparency and allow any issues arising from such works to be dealt with appropriately.
- 7.1.2 The contractor shall provide a letter drop to properties and businesses near to the site informing them of key work construction stages and potential disruptive works involved, the anticipated start and finish date, as well as providing a means of contact to site management teams, should complaints be raised.

Appendix A – Indicative Construction Layout Plan



Appendix B – Water Vole RAMS

Water Vole Reasonable Avoidance Measures



Document Control				
Project Name:		Kirkby BESS		
Project Number:		AxisL-043-003339		
Report Title		Water Vole Reasonable Avoidance Measures		
Issue	Date	Notes	Prepared	Reviewed
V1	20/01/2026	Draft for Client Comment	J. Stevens BSc (Hons)	A. Littlechild BSc (Hons)
V2	21/01/2026	First issue	J. Stevens BSc (Hons)	A. Littlechild BSc (Hons)

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1 INTRODUCTION

1.1 Report Purpose

1.1.1 Avian Ecology were commissioned by Axis on behalf of their client Pelagic Energy to prepare a Reasonable Avoidance Measures (RAMs) Method Statement for water vole in relation to the development of a Battery Energy Storage Systems (BESS) (the 'Development', Knowsley Council planning ref: 23/02008/FUL) on land off Coopers Lane, east of the Knowsley Industrial Estate, Knowsley, Merseyside (the 'Site').

1.1.2 This document has been prepared to address comments made by Merseyside Environmental Advisory Service (MEAS) on a Section 73 application (Knowsley Council planning ref: 25/00285/FUL) for the variation of conditions 2 (approved plans), 3 (drainage assessment), 4 (fire statement), 7 (Construction Environmental Management Plan), 8 (build over agreement) and 13 (battery safety management plan) of the Development. Specifically, the requirement for these RAMs relates to the variation of condition 3 (drainage).

1.1.3 Comments provided by MEAS state:

"The applicant should provide a water vole method statement which considers impacts from the construction and operation phase. This should consider impact of access, headwall construction, excavation and laying of pipeline and impact to woodland/scrub and grassland habitat between the development site and watercourse. The method statement should also consider impact of pollution transfer through the operational phase of the outfall."

1.2 Legislation

Water Vole

1.2.1 Water voles are protected in England under the provisions of the Wildlife and Countryside Act 1981 (as amended). The species is listed on Schedule 5 of the Act and is protected under Section 9, which makes it an offence to:

- Intentionally kill, take or injure a water vole;
- Possess or control any live or dead water vole or any part or derivative;
- Intentionally or recklessly damage or destroy a water vole's place of shelter or protection;
- Intentionally or recklessly disturb a water vole while it is occupying a structure or place which it uses for shelter or protection; or,
- Intentionally or recklessly obstruct access to a water vole's place of shelter or protection.

1.2.2 It may be used as a defence where disturbance occurs as an incidental result of a lawful operation that could not reasonably have been avoided.

1.2.3 The Act also prohibits the selling, offering of sale, or possessing or transporting for the purposes of sale, any live or dead water vole, or any part or derivative, or advertising any of these for buying or selling, however this is irrelevant in relation to this report.

- 1.2.4 It is generally agreed that a place of shelter or protection used by water voles includes a network of activity burrows and/or any nests that have been constructed within the burrow system or above ground amongst dense vegetation.

2 RATIONALE

2.1 Need for RAMs

- 2.1.1 The BESS development includes a drainage route which will discharge surface waters from the site to Knowsley Brook. The works will be highly localised, consisting of a 225mm outfall, set within a pre-cast concrete headwall. It is anticipated that the headwall would be less than 2m in width.
- 2.1.2 The Knowsley Brook is described in the Ecological Assessment Report (EAR)¹ submitted with the Development as '*considered to offer suitable opportunities for both [otter and water vole]*'. No field signs of either species were observed.
- 2.1.3 No desk study records of water vole were identified during the desk study for the Development, however the MEAS response noted sections of the Knowsley Brook to the southwest are designated as a Local Wildlife Site for water vole. It is understood the designated section of the Knowsley Brook lies approximately 1.15km south-west of the Site.
- 2.1.4 It is not considered that works are of a sufficient scale where removal of a small area of habitat would affect the viability of the local population, however there is a residual risk of direct impacts to water vole burrows, should the species and any burrows be present within the working area.
- 2.1.5 The drainage system has been designed with integrated water quality treatment mechanisms, including porous surfacing and filter trenches to reduce pollution. Further measures are also proposed for the containment of firewater in the event of such an incident. As such it is not considered that the discharge of water into the Knowsley Brook would result in adverse impacts to water vole.
- 2.1.6 As such, given that the presence of water vole cannot be ruled out, and considering the small scale of works, RAMs are considered an appropriate mitigation measure to direct works.

2.2 Pre-construction Survey

- 2.2.1 A pre-commencement check of the Knowsley Brook by an experienced ecologist will be undertaken prior to works commencing to confirm that water vole are absent from the working area. Only when the ecologist is satisfied that no offence will occur under the legislation should works be permitted to proceed.
- 2.2.2 The survey should follow the methodology outlined in the water vole mitigation handbook², as summarised below. survey should be undertaken between mid-April and September when water vole are typically active.

¹ Avian Ecology (2023). Coopers Lane Substation Kirkby Ecological Assessment Report.

² Dean, M., Strachan, R., Gow, D. & Andrews, R. (2016) The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London.

- 2.2.3 A search of the watercourse network will be undertaken by wading along ditch channels or where this is not possible (e.g., excessive water depth), undertaking spot checks and searches from the bankside to record the location of any water vole field signs. Searches for field signs will be undertaken from the toe of the watercourse bank within each section, up to at least 1m out into the water and at least 1m up the bank.
- 2.2.4 Searches should look for the following field signs of water vole presence:
- Sightings;
 - Droppings/Latrines;
 - Burrows;
 - Footprints;
 - Pathways;
 - Feeding stations; and,
 - Lawns.
- 2.2.5 Note that only latrines and feeding remains can be taken as definitive evidence of water vole presence. Other field signs have the potential for confusion with other species (e.g., brown rat) and as such, cannot alone be attributed to water vole.
- 2.2.6 If new presence of water vole in the vicinity of the proposed works is identified, the project ecologist will advise on necessary next steps to ensure the protection of this species. Potential options would include micro siting of works to avoid water vole burrows, or if necessary, working under licence which would need to first be sought from Natural England.

2.3 Method Statement

- 2.3.1 The below method statement applies only to small scale works affecting less than 5m of bank. Should works be larger, further pre-construction surveys would be required to rule out presence of water vole prior to commencement of works.

Method Statement Objectives

- 2.3.2 Any development related activities on the Site, such as works required in or within 5m of a ditch/watercourse may potentially affect these species. As a result, safeguards must be implemented to protect these and other species, and the Method Statement below details measures to be implemented to ensure these objectives are achieved. If these measures are followed, then no impacts are likely to occur.

Method Statement

- 2.3.3 This Method Statement should be followed for small scale works in or within 5m of a ditch and/or water course to ensure legal compliance and that the objectives are achieved.
- 2.3.4 The following measures will be adopted throughout the construction period of the Development:

- The developer, Site contractor or their representatives will appoint a suitably qualified ecologist to oversee works completed under this Method Statement for the duration of the construction period.
- A pre-construction water vole and otter survey will be carried out if small scale, localised works are required in or within 5m of a ditch. If the pre-construction survey were to confirm presence of water vole in the vicinity of the proposed works, a licence may be required if disturbance cannot be avoided.
- Site operatives will be informed by a 'tool box' talk of the potential for water vole and otter species to occur on-site, what to look out for and what to do in the event that animal is found. The tool box talk will be provided by a suitably experienced ecologist.
- A suitably experienced ecologist will be present during all works affecting land within 5m of the Knowsley Brook to provide advice and an ecological watching brief. The ecologist will be contactable by the Site Manager at all other times and available to further advise on Site, if necessary, as a contingency measure.
- Works affecting land within 5m of the Knowsley Brook must only commence after a careful visual inspection by a suitably experienced ecologist, when they have determined that no animals or their burrows are present. Vegetation should be reduced to a height of no less than 150mm prior to works commencing to aid visual searches. The ecologist will then search the areas prior to the vegetation being taken back to ground level / bare ground.
- Should evidence (or potential evidence) of water vole be found at any point during construction, works within suitable habitat and/or potentially disturbing works in close proximity must cease immediately and the ecologist will advise on the appropriate actions, including applying for a licence, if required.
- No tools, vehicles, or materials will be stored within 5m of watercourses/ditches and stand-off buffers will be clearly marked by fencing (or similar), with appropriate signage.
- Should any trenches and excavations be left open, particularly overnight, an escape route for animals that enter the trench must be provided. Ramps should be no greater than 45 degrees in angle. Ideally, any holes should be covered.
- If not covered, then excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling.

If an otter or water vole is found, or evidence of either species is found, work must stop immediately and the on-Site ecologist consulted to advise on next steps.

Appendix C – Breeding Bird and Hedgehog RAMS

Kirkby BESS, Coopers Lane, Kirkby
on behalf of Axis PED

Breeding Bird & Hedgehog Reasonable Avoidance Measures



Document Control				
Project Name:		Kirkby BESS		
Project Number:		AxisL-043-003339		
Report Title		Breeding Bird & Hedgehog Reasonable Avoidance Measures		
Issue	Date	Notes	Prepared	Reviewed
V1	23/02/2026	Draft for Client Comment	K. Love <i>MSc</i> Ecologist	J. Stevens <i>BSc (Hons)</i> Principal Ecologist

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1 INTRODUCTION

1.1 Report Purpose

1.1.1 Avian Ecology Ltd. (AEL) were commissioned by Axis on behalf of their client Pelagic Energy to prepare a Reasonable Avoidance Measures (RAMs) Method Statement for hedgehog in relation to the development of a Battery Energy Storage Systems (BESS) (the 'Development', Knowsley Council planning ref: 23/02008/FUL) on land off Coopers Lane, east of the Knowsley Industrial Estate, Knowsley, Merseyside (the 'Site').

1.1.2 This document has been prepared to address comments made by Merseyside Environmental Advisory Service (MEAS) on a Section 73 application (Knowsley Council planning ref: 25/00285/FUL) for the variation of conditions 2 (approved plans), 3 (drainage assessment), 4 (fire statement), 7 (Construction Environment Management Plan), 8 (build over agreement) and 13 (battery safety management plan) of the Development. Specifically, the requirement for these RAMs relates to the variation of condition 7 (CEMP).

1.1.3 Comments provided by MEAS state:

"The applicant has submitted an updated Construction Environment Management Plan (axis, 25 January 2026, 2569-02-CEMP-V3). I previously advised there are impact pathways to protected and priority species and offsite habitats. The previous CEMP (axis, Construction Environment Management Plan, 2569-CEMP_V2, July 2024) included no direct measures to avoid harm to species. I advised the following was required:

- *Breeding Birds Reasonable Avoidance Measures (RAMs); and*
- *Hedgehog RAMs.*

The updated Construction Environment Management Plan (CEMP) still does not include the RAMs requested above and this requirement remains outstanding. See Part Two for details of what should be included.

Part Two

Breeding Birds

No tree felling, scrub clearance, vegetation management and ground clearance is to take place during the period 1 March to 31 August inclusive. If it is necessary to undertake works during the bird breeding season then all trees, scrub and vegetation are to be checked first by an appropriately experienced ecologist to ensure no breeding birds are present. If present, details of how they will be protected are required to be submitted for approval.

Hedgehog

The habitats on site are suitable for hedgehog (a Priority Species) and the following reasonable avoidance measures should be put in place to ensure that there are no adverse effects on them:

- *A pre-commencement check for hedgehog;*
- *All trenches and excavations should have a means of escape (e.g. a ramp);*
- *Any exposed open pipe systems should be capped to prevent mammals gaining access;*
and
- *Appropriate storage of materials to ensure that mammals do not use them."*

1.2 Legislation

Breeding Birds

1.2.1 The purpose of the breeding bird RAMs is to ensure compliance with wildlife protection legislation, primarily:

- EU Directive 2009/147/EC ('The Birds Directive')¹; and,
- The Wildlife and Countryside Act 1981 ('WCA')² (as amended).

1.2.2 Under the WCA it is an offence to:

- Kill, injure or take a bird;
- Take, damage, destroy or interfere with a nest of any bird whilst it is in use or being built;
- Obstruct a nest or prevent its use; and,
- Take or destroy the eggs of any bird.

1.2.3 Certain bird species are afforded additional protection. Rare or sensitive species listed under Schedule 1 of the WCA³ are additionally protected from disturbance whilst building a nest or whilst on or near a nest and have protection from disturbance of their dependant young (which may have left the nest but still be considered "dependant"). There are also higher levels of protection for species listed on Annex I of the Birds Directive⁴, which requires that any disturbance would not affect the conservation status of these species.

1.2.4 A person shall also be guilty of an offence under Part 1 of the WCA 1981 (as amended), if they intentionally or recklessly cause harm by:

- disturbing any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or,
- disturbing dependent young of such a bird.

1.2.5 The following guidance has been consulted to inform the Breeding Bird RAMs.

1.2.6 While it is acknowledged several of these guidance documents are published/ commissioned by NatureScot, in the absence of specific guidance it is considered applicable to England (except where noted):

- Natural England '*Standing advice on wild birds*'⁵

¹ The Birds Directive: https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive_en

² WCA: <https://www.legislation.gov.uk/ukpga/1981/69/contents>

³ List of Schedule 1 species available from: <https://www.legislation.gov.uk/ukpga/1981/69/schedule/1>

⁴ List of Annex I species available from: <https://lists.nbnatlas.org/speciesListItem/list/dr2401>

⁵ <https://www.gov.uk/guidance/wild-birds-advice-for-making-planning-decisions>

- SNH (2016) *Dealing with construction and birds – guidance*. NatureScot (formerly SNH (Scottish Natural Heritage)), Inverness⁶.

- 1.2.7 This document sets out the measures that will be followed to prevent disturbance to breeding birds and to prevent potential loss or harm to active nests or dependant young, in order to comply with the legislation referenced above.

Hedgehog

- 1.2.8 Hedgehog is Priority species listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006⁷ and UK Biodiversity Action Plan⁸.

2 RATIONALE

2.1 Need for RAMs

- 2.1.1 Habitats within the Site are described in the Ecological Assessment Report (EAR)⁹. These comprise neutral grassland with scattered scrub and a limited area of deciduous woodland plantation, which is a widespread habitat of moderate ecological value. Boundary features include scrub, deciduous woodland and tall ruderal. Knowsley Brook is also located 50m south of the Site.
- 2.1.2 While clearance of these habitats would be permitted under the existing consent 19/00147/FUL, with the future baseline assessed to consist of hardstanding and bare ground of negligible ecological value, habitats planned for removal are considered to provide suitable habitat for nesting birds and hedgehog. The Development will also include a drainage route which will discharge surface waters from the site to Knowsley Brook.
- 2.1.3 It is not considered that works are of a sufficient scale where removal of a small area of habitat would affect the viability of the local populations, however there is a residual risk of direct impacts to individual hedgehogs and breeding birds.
- 2.1.4 As such, given that the potential presence of hedgehog and nesting birds, and considering the small scale of works, RAMs are considered an appropriate mitigation measure to direct works.

2.2 Breeding Bird Assemblage

- 2.2.1 This report focuses on breeding birds present within an 'impact zone'; in the context of this document an 'impact zone' is an area in which construction activities may adversely impact breeding and (or) nesting birds.
- 2.2.2 The 'impact zone' includes the area directly impacted by construction activity (e.g., an area of vegetation clearance) and a surrounding disturbance buffer in which the activity may cause disturbance.

⁶ SNH (2016) *Dealing with construction and birds – guidance*. NatureScot (formerly SNH (Scottish Natural Heritage)), Inverness. <https://www.nature.scot/doc/dealing-construction-and-birds>

⁷ NERC Act 2006 <https://www.legislation.gov.uk/ukpga/2006/16/section/41>

⁸ UK BAP <https://jncc.gov.uk/our-work/uk-bap/>

⁹ Avian Ecology (2023). Coopers Lane Substation Kirkby Ecological Assessment Report.

- 2.2.3 The size of the zone would be based on the proposed activity, the time of year and the sensitivity of the species to disturbance. In this instance, given the species likely to be present (i.e., passerines typical of urban and suburban environments) and surrounding land use, a 10m buffer is considered sufficient (where access is available).
- 2.2.4 Examples of construction activities which would require 'impact zones' during the breeding bird season are listed in **Section 2.3.1**.
- 2.2.5 Potential breeding bird species have not been identified through targeted breeding bird surveys or detailed specifically in the EAR, however the Site is likely to support common species typical of urban and suburban environments.
- 2.2.6 Ground nesting species such as lapwing and skylark are unlikely to be present due to the enclosed and small field size, but the Site may support a range of passerines in scrub and woodland habitats. Habitats within the Site are considered unlikely to support nesting Schedule 1 species.
- 2.2.7 The breeding period for most species considered likely to breed within the Site is encapsulated in the period March to August inclusive and this is the period classed as the breeding season within this document. For many species, breeding will have been completed by the end of July or mid-August and at that time few nests with eggs are likely to still be present, although there is potential for unfledged juveniles/ dependant young to still be encountered.
- 2.2.8 It is anticipated that the estimated 30 week construction period will overlap with the breeding season (March to August inclusive), and so the measures detailed in **Section 2.4 to 2.5** will be followed.

2.3 Avoidance

- 2.3.1 Works which have the potential to damage or destroy the nests of breeding birds and / or individual hedgehogs may include (but are not limited to):
- (1) Vegetation clearance, including removal of grassland, scattered scrub, tall ruderal and woodland plantation;
 - (2) Topsoil stripping;
 - (3) Earthworks;
 - (4) Excavations;
 - (5) Storage of materials; and,
 - (6) Exposed open pipe systems (hedgehogs only).
- 2.3.2 In addition, all construction activity has the potential to cause visual or audial disturbance of birds breeding within the impact zone.
- 2.3.3 It will not be possible to avoid construction activity during the breeding season. However, work will be programmed to avoid the breeding bird season (March to August inclusive), where possible.
- 2.3.4 In advance of works, dissuasion techniques may be employed to reduce the likelihood of nesting birds being encountered. For example, strimming or scrub clearance ahead of the

breeding season would discourage breeding by ground-nesting species that require a tall sward. Active scaring devices, such as "hawkeyes", scarecrows and ticker tape may also be put in place ahead of works, however these are unlikely to be fully effective. Any measures to discourage nesting would only be implemented ahead of the breeding season, so that active nesting attempts are not impacted.

- 2.3.5 Netting of trees and hedgerows is not recommended for use due to risk of entrapment of animals if not properly maintained, and if employed would be checked daily by a suitably experienced ecologist to ensure it is well maintained and no wildlife has become trapped.
- 2.3.6 All construction works which have the potential to adversely impact breeding birds or individual hedgehog will be subject to the following measures set out in **Section 2.4 to 2.5**. However, the construction programme will take into account those activities which are considered the most intense and these will be scheduled outside of the breeding period (March to August inclusive), where possible.

2.4 Breeding Bird Method Statement

Pre-construction Survey

- 2.4.1 A pre-construction site inspection visit of the impact zone will be carried out by a suitably experienced Ornithologist prior to commencement of any works undertaken within the bird nesting season of March to August inclusive.
- 2.4.2 The survey would be undertaken within no longer than 48 hours prior to the start of works within the impact zone.
- 2.4.3 The survey would cover the works area, which includes an appropriate surrounding disturbance buffer determined by the ornithologist dependent on the species present and works proposed, to detect any nesting attempts that are likely to be directly affected by construction activities, or which are located within potential disturbance distance of the works proposed.
- 2.4.4 The pre-construction survey would involve a suitably experience ornithologist observing the impact zone from a distance to record any birds showing evidence of breeding: e.g. visiting a probable nest site, carrying food or faecal sac, agitated behaviour, alarm calling or the presence of dependant young (not limited to).
- 2.4.5 Should a nest be observed (or suspected) a detailed inspection may be undertaken to record the specific location, nest contents and, where possible, estimate the age of any chicks present, so that the likely duration of the nesting attempt can be determined. In some cases nests may be inaccessible and so nest contents will not be known, in which case observations from a distance would be used to determine if the nest is active based on bird behaviour.
- 2.4.6 Where an active nest is observed, nest no vegetation clearance would be allowed to take place and nest protection measures implemented as described below.
- 2.4.7 The ornithologist would advise on a suitable buffer around the nest. Buffers would be dependent on a number of factors, including the species present, surrounding habitat and works proposed. Buffer zones should be suitably marked through use of temporary fencing to avoid accidental encroachment, while still maintaining access to the nest site.
- 2.4.8 Vegetation clearance would only be allowed to commence once the nesting attempt has ceased (i.e. reached conclusion through fledging or failure). This would be informed by a further pre-construction survey(s) as described above with timings to be informed by the nature of the nesting record (e.g., species, observed progress of nesting attempt).
- 2.4.9 Despite thorough searches, it is possible that some nests may go undiscovered until after work has commenced. In this scenario, works would be stopped immediately and the Ornithologist informed, before implementation of an appropriate buffer zone, as set out above

Additional Breeding Bird Measures During Construction

- 2.4.10 The following precautionary measures shall be followed during construction works to minimise impacts on breeding birds:
- Vehicles will observe the Site speed limit;

- Holes, pits and other excavations created as part of construction works will not be left uncovered overnight, or will provide a means of egress for birds/ animals; and,
- Ornithologist to provide 'tool box' talks to all relevant site personnel outlining bird protection risks and required measures and observations for staff to look out for and to report back to the Ornithologist.

2.5 Hedgehog Method Statement

- 2.5.1 The following Method Statement outlines suitable measures to be implemented during construction works associated with the Proposed Development (the Site), to avoid the potential for disturbance, injury or killing of individual hedgehog, other small mammal species, amphibians and reptile species).
- 2.5.2 Measures to ensure the favourable conservation status of the species during the Development must reflect legislation and guidance application at the time and the construction phase will be undertaken following RAMS under the supervision of an ECoW as required to provide advice.
- 2.5.3 These RAMs relate to the removal of grassland, scattered scrub, tall ruderal and woodland plantation habitat within the Site, and should not be employed for larger scale or extensive scrub or woodland habitat removal. Minor or short term destructive or disturbance works will also follow this Method Statement to ensure legal compliance and to ensure the objectives are achieved.

Method Statement Objectives

- 2.5.4 Any development related activities on the Site, such as vegetation clearance or excavations in areas of suitable habitat may potentially affect hedgehog (as well as amphibians and reptiles). As a result, safeguards must be implemented to protect these species and the Method Statement below outlines measures to be implemented to ensure these objectives are achieved. If these measures are followed, then no impacts are likely to occur.

Method Statement

- 2.5.5 This Method Statement should be followed for the construction works and associated minor short term destructive habitat clearance works within the Site in order to ensure legal compliance and to ensure the objectives are achieved.

Pre-construction Survey

- 2.5.6 Vegetation clearance works should follow a two stage cut (as described below) and should only commence after a careful visual inspection by a suitably experienced ECoW has determined that no hedgehog are present. Potential refugia should be hand searched by the ecologist prior to removal.
- 2.5.7 Vegetation should be first be reduced (by hand strimmer) to a height of c.150mm prior to ground works commencing to aid visual searches and encourage individuals to temporarily move away from the working areas. Only then should the vegetation be taken to ground level where it should be maintained for the duration of the construction period.

General measures

- 2.5.8 The following measures will be adopted throughout the construction period of the Development:
- The developer, Site contractor or their representatives will appoint a suitably qualified ecologist or ECoW to oversee works completed under this Method Statement for the duration of the construction period.

- Site operatives will be informed by 'tool box' talk or site induction of the potential for protected species to occur on-Site (such as hedgehog), what to look out for and what to do in the event that animal is found.
- Vegetation clearance works should only commence after a pre-construction inspection as described above by has determined that no animals are present.
- The proposed timing of the works should avoid the hedgehog (and amphibian and reptile) hibernation period (November to February inclusive) where reasonably practicable in order to prevent disturbance to hibernating animals.
- Trenches and excavations should include an escape route for animals that might enter the trench, especially if left open overnight. Ramps should be no greater than 45 degrees in angle and can include wooden planks or ramped earth. Ideally, any excavations open for a prolonged period should be covered.
- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling.
- Any exposed open pipe systems should be capped to prevent mammals gaining access.
- Materials should be stored raised on pallets or similar to discourage use by hedgehog.
- General good housekeeping should be employed on-Site, ensuring materials are kept tidy and neatly stored.
- Any chemicals and/or fuel should be kept in a secure container.
- Any excavated material stored overnight should be searched prior to being used as infill.
- Any brash cut down from the Site should be placed in piles within a set aside and undisturbed habitat area, to create additional hibernacula.

2.5.9 Should a hedgehog or other notable species be found at any point during construction, works within suitable habitat and/or potentially disturbing works in close proximity must cease immediately and the ECoW will advise on the appropriate actions (including applying for a licence, if required for great crested newt). Hedgehog found during the visual inspection will be placed away from the development works in the wider area. This will comprise terrestrial habitats that will not be impacted by the works, with connectivity with surrounding terrestrial habitats.

Appendix D – Riparian Mammals

Ecological Technical Note

Kirkby BESS, Coopers Lane, Kirkby
on behalf of Axis PED

**Technical Note to accompany Construction Environmental
Management Plan (CEMP)**



Document Control				
Project Name:		Kirkby BESS		
Project Number:		AxisL-043-003339		
Report Title		Technical Note to accompany Construction Environmental Management Plan (CEMP)		
Issue	Date	Notes	Prepared	Reviewed
V1	12/03/2026	Final	K. Love <i>MSc</i> Ecologist	J. Stevens <i>BSc (Hons)</i> Principal Ecologist

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1 INTRODUCTION

1.1 Introduction

- 1.1.1 Avian Ecology Ltd. (AEL) were commissioned by Axis on behalf of their client Pelagic Energy to prepare a technical note to accompany an updated Construction Environment Management Plan (CEMP) (Axis, 25 January 2026, 2569-02-CEMP-V3) produced in relation to the development of a Battery Energy Storage Systems (BESS) (the 'Development', Knowsley Council planning ref: 23/02008/FUL) on land off Coopers Lane, east of the Knowsley Industrial Estate, Knowsley, Merseyside (the 'Site').
- 1.1.2 This document has been prepared to address comments made by Merseyside Environmental Advisory Service (MEAS) on a Section 73 application (Knowsley Council planning ref: 25/00285/FUL) for the variation of conditions 2 (approved plans), 3 (drainage assessment), 4 (fire statement), 7 (Construction Environmental Management Plan), 8 (build over agreement) and 13 (battery safety management plan) of the Development. Specifically, the requirement for this document relates to the variation of condition 3 (Surface Water Drainage).
- 1.1.3 Comments provided by MEAS state:

"In line with my previous comments on condition 3 drainage and surface water discharge to Knowsley Brook, the CEMP now includes water vole RAMs (see section 5.10) which is welcomed. Detailed water vole RAMs are provided at Appendix B of the document (Avian Ecology, 21/01/2026, AxisL-043-003339, Issue V2) which includes a method statement outlining the need for a pre-start water vole and otter survey, toolbox talk and restrictions on storage of materials within 5m of the brook. This is accepted and results of pre-start survey should be provided to the Local Planning Authority for approval prior to commencement of works.

In line with water vole RAMs in Appendix B, the applicant, their advisers and contractors should be made aware that if any water vole or otter are found, then as a legal requirement, work must cease and advice must be sought from a licensed specialist.

Note: in my comments of 5 November 2025, regarding condition 3, I outlined the need for the applicant to consider impact from the construction and operation phase. This should consider impact of access, headwall construction, excavation and laying of pipeline and impact to woodland/scrub and grassland habitat between the development site and watercourse. The method statement should also consider impact of pollution transfer through the operational phase of the outfall.

This impact assessment has not been undertaken and should form part of the pre-start water vole and otter survey to demonstrate how impact can be avoided, minimised and/or mitigated."

1.2 Report Purpose

- 1.2.1 The purpose of this document is to consider impacts of construction of the Development on riparian mammals that may be using the Knowsley Brook and adjacent habitats, during the Development's construction and operation phase. In particular, this document assess works associated with the construction and operation of a new outfall to be constructed as part of the surface water drainage strategy of the Development.
- 1.2.2 This document also sets out any measures required to be implemented beyond the existing CEMP to avoid the risk of adverse impacts on riparian mammals sensitive ecological receptors, identify biodiversity protection zones and ensure legal compliance in relation to protected habitats and species.

- 1.2.3 The Site Manager and all site personnel will be responsible for the implementation of this document and the CEMP. They will comply with all conditions of the planning permission and the relevant provisions contained in the reports submitted in accordance with those conditions. The CEMP will be monitored regularly throughout the works.

Ecological Baseline

- 1.2.1 This document should be read in conjunction with the *Ecological Assessment Report*¹ (EAR) produced by AEL in 2023, which provides an assessment of any potential effects the Development may have on potential protected species or habitats.
- 1.2.2 Briefly, no evidence of otter or water vole was observed during baseline ecological surveys, however downstream sections of the Knowsley Brook are known to support water vole. The Knowsley Brook provides suitable habitat to support both species.

Proposed Works

- 1.2.3 The only works associated with the Development which could potentially affect riparian mammals is the construction of a new outfall to the Knowsley Brook. Construction of the outfall will require the installation of pipework connecting to a new headwall situated within the bank of and discharging to the Knowsley Brook. Works will require works to the bank of the Knowsley Brook, as well as associated vegetation clearance and access.
- 1.2.4 The drainage strategy is described within the Drainage strategy Report² and is shown on the Drainage Plan Layout (Drawing No: KIRK-BML-XX-XX-DR-C-0501) and Pipe Bedding Details (Drawing No: KIRK-BML-XX-XX-DR-C-0511).

2 IMPACT ASSESSMENT

2.1 Overview

- 2.1.1 This section details the required measures to ensure adequate protection, mitigation and compensation for Knowsley Brook and adjacent habitats.
- 2.1.2 It is assumed that all Environmental Management measures contained within the CEMP will be adhered to, including the following of most relevant to this impact assessment:
- Protection of water resources
 - Noise and vibration control measures
 - Dust control measures
 - Sensitive lighting
 - Implementation of a pollution prevention plan
 - Works in proximity to the Knowsley Brook to follow Reasonable Avoidance Measures (RAMs) for water vole.
- 2.1.3 Detailed descriptions of measures to be implement can be found within the CEMP.

¹ Avian Ecology (2023) *Kirkby BESS, Coopers Lane Ecological Assessment Report*

² Barnsley Marshall (2026) *Kirkby – BESS Site Drainage Strategy Report. KIRK-BML-XX-XX-RP-C-051.*

2.2 Construction

2.2.1 The potential for impacts to water vole through construction relate to:

- Direct impacts during headwall installation
- Vegetation clearance resulting in loss of suitable shelter and foraging habitat
- Disturbance as a result of works (including access)

2.2.2 Direct impacts to the Knowsley brook will be highly localised, with the headwall itself anticipated to measure approximately 750mm width as shown on Pipe Bedding Details (Drawing No: KIRK-BML-XX-XX-DR-C-0511). As such, RAMs will be implemented to protect water vole as outlined in the Water Vole Reasonable Avoidance Measures document³. This would be informed by a pre-construction survey for riparian mammals.

2.2.3 Vegetation clearance required to permit installation of pipework and access for construction of the headwall would be required and could result in a reduction of foraging and sheltering habitat for riparian mammals. Other than the relatively small area required for the headwall installation, this would predominantly be away from the Knowsley Brook and as such it is not expected that such small-scale vegetation clearance would affect the local water vole population. Clearance of vegetation within 5m of the Knowsley Brook should follow a two stage cut, as detailed within the Water Vole RAMs document.

2.2.4 Access to the headwall location would be from the main BESS site, where the construction compound would be located. It is expected that all materials would be storage at the construction site and transported to the headwall location as required. As outlined in Section 2.1, all works would be undertaken in accordance with the CEMP which includes measures to protect water courses, including any high risk activities (e.g., wheel washing, concrete wash out facilities) to be located away from watercourses and measures to reduce potential disturbance from noise, vibration and lighting.

2.2.5 Provided the CEMP and water vole specific RAMs are followed, impacts to riparian mammals and their supporting habitats (i.e., the Knowsley Brook) as a result of construction works are considered to be negligible.

2.3 Operation

2.3.1 The potential for impacts to water vole through operation relate to:

- Habitat degradation from polluted discharge
- Disturbance from routine maintenance

2.3.2 As outlined within the Drainage strategy report, pollution control devices are included within the drainage layout including:

- Catchpit to reduce silt and debris;
- Porous surfacing to improve water quality;
- Filter trench to improve water quality;

³ Avian Ecology (2026) *Kirkby BESS, Coopers Lane: Water Vole Reasonable Avoidance Measures*

- Attenuation tank (including additional capacity in case of fire); and,
- Flow control device to limit discharge to 5 l/s;

- 2.3.3 The flow control device would be located downstream of the attenuation tank, and as such in the event of a fire, the penstock valve could be closed and potentially contaminated runoff collected in the attenuation tank for safe disposal.
- 2.3.4 Considering the implementation of the above measures, and considering the urban surrounds of the Knowsley Brook it is not considered that pollution during operation is likely to affect riparian mammals using the Knowsley Brook.
- 2.3.5 It is not expected that routine maintenance would require substantive works, however on occasion it may be required to clear the screen of debris and to clear vegetation surrounding the outfall. Such works would not require any excavations and it is not expected that these highly localised works to an already constructed outfall would result in harm or disturbance to riparian mammals.
- 2.3.6 In the unlikely event of more substantive works requiring excavations to the bank (e.g., full replacement of the outfall) suitable pre-construction surveys would be undertaken to assess the potential for impacts. Should water vole or otter resting sites be found during pre-construction surveys and impacts be considered likely to occur, works would only proceed under a licence (e.g., development licence, class licence or strategic licence as applicable at the time) issued by Natural England.

3 CONCLUSION

3.1 Summary

- 3.1.1 With the implementation of the CEMP and Water Vole RAMS It is not expected that the construction or operation of the Development would result in impacts to riparian mammals that have the potential to harm the local population.