Great Harmeston Solar Farm

Environmental Statement

Technical Appendix 4.1
Outline Construction Environmental Management Plan

Development of National Significance
Pre-Application Consultation

March 2026

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1. INTRODUCTION

1.1. This document is the Outline Construction Environmental Management Plan (Outline CEMP) for Great Harmeston Solar Farm.

Purpose of Document

1.2. This Outline CEMP has been produced to set out the commitments of the Applicant towards securing specific mitigation measures and best working practices to adequately protect environmental resources during the construction phase of the proposed development, including potential impacts on human receptors. The Outline CEMP also sets out details on the construction working approach, including details on proposed working hours, construction compounds, control of lighting, management of vehicle movements, wheel washing facilities and waste removal.

1.3. This Outline CEMP should be reviewed alongside the Outline Construction Biodiversity Management Plan (Outline CBMP) which sets out the measures for the protection of habitats and species during the construction phase. This includes pollution control and runoff measures to protect a number of designated sites which are located within the Zone of Influence of the proposed development.

1.4. The Outline CEMP outlines the measures which will be implemented by the Applicant during the construction phase of the proposed development once the permission is granted by the Welsh Minsters. The intention is for it to be converted into a Final CEMP that would approval by the Local Planning Authority (LPA) in consultation with Natural Resources Wales. This process will be secured by an appropriately worded planning condition attached to the permission.

1.5. The Final CEMP will be substantially in accordance with this Outline CEMP and must be adhered to throughout the construction works by the contractor appointed by the Applicant to undertake the proposed development (referred to in this document as "the Contractor").

2. ROLES AND RESPONSIBILITIES

2.1. A clear definition of roles and responsibilities ensures that environmental requirements are understood and properly implemented on site.

2.2. Key roles for the project are set out below and the relevant point of contacts should be set out in the Final CEMP:

- Developer - Responsible for appointing competent duty-holders and approving key project documentation. The Developer retains overall interest in ensuring that environmental standards are met and that the project is delivered in accordance with planning requirements.

- Principal Contractor - Responsible for the overall management and coordination of construction activities, ensuring compliance with the Final CEMP, relevant legislation and planning conditions. The Principle Contractor will implement the defined environmental controls, supervise subcontractors and ensure that records, inspections and reports are maintained throughout the project.

- Project Manager - Leads the delivery of the works, ensures that resources are available, manages environmental risks and verifies that procedures within the Final CEMP are being followed.

- Site Manager / Site Supervisor - Oversees day-to-day site activities, ensures correct implementation of mitigation measures, conducts routine inspections and communicates environmental requirements to the workforce.

- Environmental Lead – Monitors environmental performance, advises on mitigation, manages incident response, maintains environmental records and liaises with regulatory bodies where required.

- Ecological Clerk of Works (ECoW) - Provides ecological oversight during sensitive stages of work, confirms pre-start conditions, advises on ecological constraints and ensures compliance with ecological method statements.

- Archaeological Project Manager – provide archaeological & Scheduled Monument oversight during the sensitive stages of work.

- Subcontractors and Workforce - Required to follow all instructions within the Final CEMP, attend site inductions and toolbox talks, and report any environmental issues, near misses or non-conformances immediately to site management.

2.3. Emergency Contacts: -

Emergency Contact	Natural Resources Wales - Pollution Hotline 0300 065 3000
Wildlife Rescue Centre	Gower Bird Hospital, Sandy Lane, Southgate, Swansea SA3 2EW

3. CONSTRUCTION PRINCIPLES

3.1. The application site will be set up and managed with consideration of the principles laid out below:

- Considerate: All work is to be carried out with positive consideration to the needs of local businesses, neighbours, site personnel, visitors, and the public.
- Environment: Be aware of the environmental impact of the application site and minimise the effects of dust, noise, light and air pollution. Attention will be paid to waste management to reuse and recycle materials where possible.
- Cleanliness: The application site will be kept clean and in good order at all times. Application site facilities, offices, toilets and drying rooms will be maintained to a good standard. Surplus materials and rubbish will not be allowed to accumulate on the site or spill over into the surroundings and dirt and dust from construction operations kept to a minimum.
- Good Neighbour: General information regarding the works will be available to nearby neighbours. Full and regular communication with neighbours, including adjacent residents, farmsteads and businesses, regarding programming and site activities to be maintained from prestart to completion.
- Respectful: Respectable and safe standards of dress to be maintained at all times. Pride in the management and appearance of the application site and the surrounding environment shown at all times.
- Safe: Construction operations and site vehicle movements are to be carried out with care and consideration for the safety of site personnel, visitors, the public and the environment.
- Responsible: Ensure that everyone associated with the application site understands implements and complies with this code.

3.2. The health, safety and environmental expectations are as follows:

- To have no accidents or dangerous occurrences on site;
- To have no occupational ill health arising from the project;
- To ensure no environmental damage occurs from the project;
- To ensure the least disruption to the local community from the project, and
- To exclude as far as is reasonably practicable all unauthorised persons from the project.

4. CONSTRUCTION PROGRAMME

4.1. It is anticipated that the solar farm will take approximately nine months (40 weeks) to complete. This includes the preparation of the site, the temporary access roads (if necessary), erection of security fencing, assembly and erection and installation of the cabling and solar module arrays, PV strings, installation of the transformer, substation containers and grid connection.

Construction Hours

4.2. Construction works will be carried out Monday to Friday 07:00-18:00 and between 08:00 and 13:30 on Saturday, unless otherwise agreed by the local planning authority. The following works may occur outside these hours: -

- emergency works; and
- works which do not cause noise that is audible at the boundary of the Order limits.

4.3. All traffic movements will be carried out between the hours of 07:00 to 19:00 on Monday to Friday and 08:00 to 16:00 on Saturdays.

4.4. No works will be undertaken on Sundays or Bank Holidays unless agreed in writing beforehand with the local planning authority.

Site Establishment

4.5. During the mobilisation period of development, a security cabin will be placed within the areas designed for the temporary construction compounds.

4.6. The construction compounds will be positioned at an appropriate distance into the application site to prevent the likelihood of any construction traffic having to queue on the adjacent public highway during busy periods.

4.7. A project notice board would be installed at the main entrance to the application site and at the internal crossing points along the Public Rights of Way traversing the application site.

4.8. Site welfare facilities and offices will consist of linked “Portakabin” type units.

4.9. The welfare facilities will have hot and cold running water, with a clean drinking water supply. Washing facilities and showers will be provided for the duration of the works, to include soap and towels or other suitable means of drying.

4.10. All welfare facilities will always be kept clean, tidy, and hygienic.

4.11. First aid facilities will be provided together with a trained first aider during working hours.

4.12. The temporary construction compounds will be equipped with Fire Points and a wireless evacuation alarm system. Designated Fire Marshall and Fire Coordinator would be appointed as part of a Construction Phase Health and Safety Plan.

5. CONSTRUCTION VEHICLES ROUTING

5.1. All traffic movements will be carried out between the hours of 07.00 to 19.00 on Monday to Friday and 08.00 to 16.00 on Saturdays. The designated route for all traffic associated with the construction phase will be to and from the A40 which is located to the north of the site, east of Haverfordwest. The A40 connects to the M4 (the closest motorway) further east. The proposed construction route is summarised below:

i. Construction traffic will travel south onto A4076 Freemens Way from the A40/ Cartlett Road/ Freemens Way roundabout.

ii. Vehicles will continue along the A4076 Freemens Way before routing south onto the A4076 Dredgeman Hill from the A4076/ Pembroke Road/ A4076 Dredgeman Hill/ Caradog's Well Road/ Merlin's Hill roundabout (Merlins Bridge Roundabout).

iii. Traffic will route south along the A4076 Dredgeman Hill (which becomes Vine Road, St Peters Road and Milford Road), routing through Johnston before arriving at the Sunnycroft roundabout.

iv. Vehicles travelling to the Western Parcel (access A-D) will route south onto the A4076 Milford Road. Vehicles travelling to the Eastern Parcel (access E-K) will route east onto the A477.

5.2. There are no signed weight restrictions along the route. However, there is a signed height restriction of 4.8 metres for a bridge which crosses the A4076 Freemens Way approximately 280 metres south of the Merlins Bridge Roundabout. Deliveries to the site will therefore be made on vehicles which are of a suitable size to route beneath the bridge. No road closures will be required.

5.3. Non-local workforce will stay at local accommodation and general operatives will be transported to the site by minibuses to minimise the impact on the local highway network. The number of car trips to the site will be minimised to those of specialist engineers, public authority officers and senior staff, such as project managers and health and safety executives.

5.4. Construction routing would be secured through a final Construction Traffic Management Plan.

5.5. The construction compound will contain the following

- Temporary site facilities (Port-a-Cabin type) to be used for site office and welfare facilities, including welfare facilities with provision for sealed waste storage and removal.
- Container storage unit(s) for tools and equipment storage.
- Container storage unit(s) for components and materials.
- Refuelling compound for construction vehicles and machinery.

- Adequate parking area for cars, construction vehicles and machinery.
- Designated skips for recycling and construction waste.
- Wheel washing facility.
- Adequate space for HGV to manoeuvre and offload within site to reduce impacts on local roads.

6. SOIL MANAGEMENT PLAN

6.1. All operations are to be undertaken strictly in accordance with the methodology described within this document and the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, DEFRA (2009).

6.2. Soil quality can be impaired by incorrect handling, separation, storage and replacement. Particular problems arise from:

- Handling soils at inappropriate moisture content
- Inappropriate use of machinery
- Incorrect topsoil stripping depth resulting in dilution with underlying subsoil
- Poor storage separation resulting in mixing
- Excess stockpile height leading to compaction damage, runoff and erosion.

6.3. The ease of soil handling is affected by soil type. Heavy soils such as those at this site are difficult to handle when wet without causing structural damage.

Soil Stripping

6.4. All soil handling should be limited to dry conditions between the start of May and the end of September. Soil is to be checked by a simple 'plasticity test' to determine if it is an appropriate moisture content to be handled: this involves testing whether a 3 mm thick thread can be rolled in the palm of the hand. If it cannot, the material is suitable for handling.

6.5. Where operational constraints require the disturbance of plastic soil material, suitable remediation should be specified, for instance the wind rowing of loose tipped material.

6.6. Stripping should only take place using an excavator as described by Sheet 1 in the MAFF Good Practice Guide for Handling Soils[1].

6.7. When topsoil and subsoil resources are stripped, they should be stored separately in low bunds to avoid over-compaction. Topsoil should be stripped carefully to avoid dilution with subsoil, the average topsoil depth at the site is 250 mm. In most places there is a distinct colour difference between topsoil and subsoil that should aid accurate stripping.

6.8. It is recommended that the following stages be followed to ensure that suitable conditions exist and that damage to soils is minimised:

[1] MAFF Good Practice Guide for Handling Soils, (www.defra.gov.uk/farm/environment/land-use/soilguid/)

- Machinery operation: a tracked hydraulic excavator should be used to load topsoil and subsoil. The soils should be stripped, stockpiled, removed from storage (Sheet 3 in the MAFF Good Practice Guide) and replaced by tracked hydraulic excavator using the loose tipping technique (Sheet 4 in MAFF Good Practice Guide), with only gentle firming by tracked vehicles. Stockpiles should be less than 4 m in height.

- Rainfall during operations: during rainfall and soon after it ceases there will always be surplus of water in the surface layers of soil. If earthmoving continues the surface layer will become compacted, ruts will be formed and any further rain will lie on the surface and tend to drain away far more slowly than previously. Conditions will then tend to deteriorate further during earthmoving with consequential damage to soils. Consequently, soil stripping may be required to stop during heavy rainfall. After rainfall, the wetness of the soil should be checked (by the earthworks contractor) before recommending mechanised soil handling.

Open Trenches

6.9. For open trenches, the trench will be progressively dug using excavators and the excavated soil will be placed adjacent to the trench. Excavated soil will generally be stored on the opposite side of the working area from topsoil and there shall be no mixing of topsoil and subsoil. Dependent on the structure of the subsoil it may be necessary to excavate some areas in distinct layers and backfill the material in the same structured layers once the pipe is installed.

6.10. Once the trench is in an acceptable depth and in a suitable condition to receive the cables lower and lay operations can commence. It may be necessary to remove water from trenches and excavations, if so this will be carried out using portable pumps.

6.11. Progressive backfilling will be managed in coordination with the lower and lay activities to ensure excavations are kept open no longer than necessary and minimise the length of any open trenches. Backfilling will progress in layers with each layer compacted sufficiently to prevent subsidence in the future. Part way through the backfilling process, heavy duty warning tape will be laid as a protection measure against the possibility of damage to the cabling works from any future excavation activities.

Remediation

6.12. Remediation should not be necessary if the management plan detail is adhered to. However, should surface water problems be identified by operators in the seasons following cable installation, it is important that the causes are correctly identified.

Soil Compaction

6.13. Compaction damage following soil reinstatement may be evidenced by standing water at the land surface, or by poor grass growth, resulting either from soil waterlogging or drought stress due to inhibited rooting depth.

6.14. Existence of over-compacted layers should be initially assessed by inspection of shallow pits. This is particularly important in establishing cause with reference to damage to drainage systems as described above.

6.15. Topsoil compaction can be removed relatively easily by cultivation (ploughing) and reseeding. This should be done under dry conditions in spring or early autumn.

6.16. Where compacted subsoil layers are observed, they should be loosened/ripped using commercial subsoiling equipment. Grassland subsoilers (which minimise vegetation disturbance) are also commercially available.

7. POLLUTION PREVENTION

Pollution & Spillages

7.1. To avoid pollution incidents which may impact the watercourses within or adjacent to the application site, and designated sites located downstream, measures for the safe storage of chemicals and materials shall be implemented.

7.2. Any potential contaminants (fuel, oils and chemicals) used during construction will be stored in designated compounds on an impermeable surface, at least 15m from any watercourse. These will be securely locked away when not in use.

7.3. Where bunds or similar containment systems are used at fuel/chemical/COSHH storage and handling areas, they should be sized to hold 110% of the capacity for a single container/drum/tank, or where there is more than one container/drum/tank, not less than 110% of the largest container or 25% of their aggregate capacity, whichever is the greater. This is in line with CIRIA guidance.

7.4. Appropriate pollution control measures will be employed in accordance with those outlined in the NetRegs document Guidance for Pollution Prevention (GPP) 5: Works and maintenance in or near water (February 2018). Although not endorsed by Natural Resources Wales (as NRW do not currently provide good practice guidelines following the withdraw of Pollution Prevention Guidelines (PPG) 5), measures in this document (accessed at: http://www.netregs.org.uk/media/1418/gpp-5-works-and-maintenance-in-or-near-water.pdf) should nevertheless be followed in order to prevent pollution of the nearby watercourses and ensure any pollution events are dealt with swiftly.

7.5. A spill kit must be kept on site with sand, earth or commercial products for the containment of fuel and other material spillages. All staff will receive appropriate training in the use of these kits and are to be made aware of where the kit is stored.

7.6. A detailed pollution/spill response plan will be kept within the site office.

7.7. In the event of an accidental spillage, the following procedures will occur:

- The source of the spill will be stopped and any surrounding site personnel informed
- The Site Environmental Lead will be informed immediately
- The spill will be contained through use of a spill kit or other available materials.
- If the spill occurs close to a watercourse or other sensitive habitat, measures will be taken to ensure that the spill does not affect this area (this may include covering with ground mats, creation of a bund or channel)
- If required, the Site Environmental Lead will contact NRW to inform them of the situation.

7.8. Machinery, plant and vehicles have the potential to cause pollution via hydrocarbon contamination. All vehicles and plant used for construction must be maintained to good working order to ensure that there is minimal risk for potential fuel or oil leaks within the application site. Refuelling of any plant and site-based vehicles will be carried out by a suitable qualified person to ensure that potential pollution incidents are prevented, and a quick response plan is implemented should a spill occur. Fuel delivery and refuelling will take place in the construction compound(s).

Noise Pollution

7.9. 'Best Practicable Means' should be employed across the construction phase to ensure impacts are minimised. These measures should include:

- Equipment should be turned off when not in use and no vehicle idling should be permitted within the construction site including construction yards etc;
- Where possible all noisy plant and equipment should be replaced with less noisy alternatives;
- All plant should be properly maintained, and all noise control measures be properly employed i.e. exhaust silencers fitted, vehicle panels closed etc;
- All panel frame supports are to be rammed or push driven. Pre-auguring can be used to facilitate this. Where ground conditions do not allow this, alternative methods should be selected with a view on their potential noise emissions. Impact driven supports should be viewed as a last resort;
- Do not drop materials i.e. access road surface materials etc, from excessive heights. Where necessary consider screens around material drop areas;
- Where no other practicable means are available, the use of appropriately designed, temporary acoustic screens can be considered for noisy works close to residential properties;
- Construction traffic should be timed and routed to minimise the impact to local residents; and,

7.10. Noise monitoring should be carried out in the event of valid complaints.

8. DUST AND EMISSION MITIGATION

8.1. It is considered that employment of construction best practice should ensure that no problematic dust or PM10 concentrations occur during the construction process.

8.2. IAQM guidance outlines a number of site-specific mitigation measures based on the assessed site risk. The measures are grouped into those which are 'highly recommended' (i.e. should be employed) and those which are 'desirable' (i.e. should be considered under best practice).

8.3. As the application site is classed as low risk the following mitigation measures are highly recommended:

8.4. With respect to communications:

- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
- Display the head or regional office contact information.

8.5. With respect to site management:

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.

8.6. With respect to monitoring:

- Carry out regular site inspections to monitor compliance with the Final CEMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

8.7. With respect to preparing and maintaining the application site:

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.

8.8. With respect to operating vehicle/machinery and sustainable travel:

- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.

8.9. With respect to operations:

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.

8.10. With respect to waste management:

- Avoid bonfires and burning of waste materials.

8.11. Additionally, as the application site is classed as low risk the following mitigation measures are desirable:

8.12. With respect to preparing and maintaining the application site:

- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.

8.13. With respect to operating vehicle/machinery and sustainable travel:

- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
- A speed limit of 10mph is set on where the surfaced areas cross Public Rights of Way.

8.14. With respect to operations:

- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

8.15. As the application site is classed as low risk for earthworks no mitigation measures are required with respect to earthworks.

8.16. As the application site is classed as low risk for trackout the following mitigation measures are desirable:

- All site access roads are to be assessed daily in terms of transient dust, with roads to be dampened down where required.
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Record all inspections of haul routes and any subsequent action in a site log book.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

9. SEGREGATION OF CONSTRUCTION WASTE & WASTE MANAGEMENT PLAN

9.1. Key environmental consideration for construction sites include the reduction of waste and the re-use of recycling of waste materials. Waste such as packaging, plastic, pallets, metal, general waste, etc, will be segregated on site and removed from site by an appointed waste contractor(s) for either reuse, recycling or disposal. All equipment associated with the development would be manufactured off site and delivered to the development site in appropriate packaging.

Implementation

9.2. Prior to the commencement of the proposed development a member of the on-site construction management staff will be assigned the role of Construction Waste Manager. The Construction Waste Manager will be in charge of preparing and implementation of the objectives of the Waste Management Plan (WMP), ensuring that all hired waste contractors have the necessary authorisations and that the waste management hierarchy, waste segregation arrangements and waste collection arrangements are adhered to. The person nominated must have sufficient authority so that they can ensure everyone working on scheme adheres to the WMP. The WSP will form part of the final Decommissioning Plan.

Waste Management Hierarchy

9.3. The waste management hierarchy sets out the most efficient way of managing waste in the following order:

- Prevention and Minimisation - The primary aim of the WMP will be to prevent and thereby reduce the amount of waste generated at each stage of the project.
- Reuse of Waste - Reusing as much of the waste generated on site as possible will reduce the quantities of waste that will have to be transported off site to recovery facilities or landfill, for example reusing wooden pallets.
- Recycling of Waste - There are a number of established markets available for the beneficial use of construction waste such as using waste aggregate as fill for new access roads.

9.4. At all times during the implementation of the WMP, disposal of waste to landfill will be considered only as a last resort.

9.5. The expected waste types arising during the construction phase are expected to be:

Materials type	Example	Waste Classification Code
Cables	Electrical wiring offcuts, Copper, aluminium	

		17 04 01 17 04 02
Cardboard	Boxes and cartons	15 01 01
Composite packaging	For transportation to site.	15 01 05
Metals	Copper, aluminium, iron and steel (mixed metals)	17 04 07
Inert materials	Sand, stone, aggregates	17 01 07
Mixed municipal waste	Daily canteen waste from construction workers, miscellaneous	20 03 01
Plastic packaging	Packaging with delivery of equipment	15 01 02
Wooden packaging	Boxes and pallets	15 01 03
Soil & stone	Soils and subsoils	17 05 04
Staff welfare facilities	Foul water / waste	20 03 04
Street-cleaning residue	Cleaning of local roads	20 03 03

Waste Arisings

9.6. Construction waste will arise on the proposed development mainly from unavoidable construction waste, including material surpluses and damaged materials and packaging waste.

9.7. Appropriate measures will be taken to ensure excess waste is not generated during construction, including:

- Ordering of materials will be on an 'as needed' basis to prevent over supply to site. Co-ordination is required with suppliers enabling them to take/buy back surplus stock.
- Purchase of materials pre-cut to length to avoid excess scrap waste generated on site.
- Request that suppliers use least amount of packaging possible on materials delivered to the site.

- Ensuring correct storage and handling of goods to avoid unnecessary damage that would result in their disposal.
- Ensuring correct sequencing of operations.
- Use reclaimed materials in the construction works.
- Waste Storage, Containment and Segregation.

10. OTHER CONSIDERATIONS

Control of Lighting

10.1. Depending on the time of year, some artificial lighting may be required to facilitate safe working environments during the working hours. Any artificial lighting would be limited to winter to reflect the shorter daylight hours.

10.2. A sensitive lighting strategy will be developed and any lighting will be deployed in accordance with the following recommendations:

- Use of lighting will be minimised to that required to achieve safe site operations;
- Use of any portable lighting will utilise downward directional fittings to minimise outward light glare. Construction vehicles will use dipped headlights.
- Key habitat corridors for bats, including hedgerows and woodland edge, will remain unlit. These restrictions are to be applied during the bat activity season which is from April to October (inclusive).

Management and Movement of Concrete

10.3. Ready-mix concrete will be used for the substation and transformer foundations and as such concrete will not be batched on site. If the truck cannot discharge directly into the works, then transport to move the concrete from the delivery truck to the works must be provided. On completion of discharge and before the truck returns to public highway the discharge chute will be cleaned. The Contractor will provide suitable facilities, such as lined skip, within the construction compound. The ready-mix concrete delivery lorries will then return to the batching plant for washout. Excess concrete will be sent back to the batching plant. To prevent pollution, it is important that all concrete pours are planned in advance and that specific procedures are adopted where there may be a risk of surface water or groundwater contamination.

Crushing / Screening of Materials On-Site

10.4. Construction does not involve the use of a mobile unit for crushing / screening of material on site.

Construction Impacts Upon Scheduled Monument

10.5. A scheduled monument is situated in the direct vicinity of the development. Construction activity is not permitted within a scheduled area or directly adjacent to it. Temporary fencing must be erected around Scheduled Monuments during the construction and decommissioning phases to ensure no works are undertaken within a buffer zone of the Scheduled area.

Open cut trenches

10.6. The preferred method of laying cables is by burying them in an open-cut trench. However, sections of the cable run will be laid using non-open cut techniques.

10.7. For open trenches, the trench will be progressively dug using excavators and the excavated soil will be placed adjacent to the trench. Excavated soil will generally be stored on the opposite side of the working area from topsoil and there shall be no mixing of topsoil and subsoil. Dependent on the structure of the subsoil it may be necessary to excavate some areas in distinct layers and backfill the material in the same structured layers once the pipe is installed.

10.8. Once the trench is in an acceptable depth and condition to receive the cables; lower and lay operations can commence. Occasionally it may be necessary to remove water from the trench and excavations and this is carried out using portable pumps. As a precautionary measure, a sloping plank or ramp will be left in any excavations deeper than 1m which are to remain open overnight, to avoid trapping any badgers that may access the excavation.

10.9. Backfilling commences progressively to keep up with lower and lay activities so that excavations are kept open no longer than necessary and that the length of open trench is minimised. Backfill will progress in layers with each layer compacted sufficiently to prevent subsidence in the future. Part way through the backfill process heavy duty warning tape may be laid as a protection measure against the possibility of damage to the cabling works from any future excavation activities. .

Unexpected Contamination

10.10. Should unexpected or more widespread contamination be noted during the construction phase, further assessment may be required and should be undertaken by a suitably experienced geo-environmental consultant to reappraise the potential risks.

The Management and Movement of Concrete

10.11. Ready-mix concrete will be used for the substation and transformer foundations and as such concrete will not be batched on site. If the truck cannot discharge directly into the works then transport to move the concrete from the delivery truck to the works must be provided. On completion of discharge and before the truck returns to public highway the discharge chute will be cleaned. The contractor will provide suitable facilities, such as lined skip, within the construction compound. The ready-mix concrete delivery lorries will then return to the batching plant for washout. Excess concrete will be sent back to the batching plant.

10.12. To prevent pollution, it is important that all concrete pours are planned in advance and that specific procedures are adopted where there may be a risk of surface water or groundwater contamination.

Local Community Responsibility

10.13. The Project Manager will manage and co-ordinate on-site environmental activities and act as a point of contact for local residents. Liaison between the Contractor and local residents will seek to ensure that any concerns are resolved quickly.

10.14. The Project Manager will be responsible for briefing the Construction Environmental Management Plan to construction staff; fulfilling environmental obligations on site; attending to any on-site environmental incidents or concerns; reporting and

monitoring any environmental incidents; and ensuring waste management procedures are followed.

Control of Lighting

10.15. Depending on the time of year, some artificial lighting maybe required to facilitate safe working environment during the working hours. Any artificial lighting would be limited to the winter to reflect the shorter daylight hours.

10.16. Any lighting will be deployed in accordance with the following recommendations:

- Use of lighting will be minimised to that required to achieve safe site operations.
- Use of any portable lighting will utilise downward directional fittings to minimise outward light glare. Construction vehicles will use dipped headlights.

Foul Waste

10.17. During the construction phase, 'Porta-loo' type facilities, or equivalent, will be used and emptied by a waste contractor, therefore nullifying any potential effects on drainage ditches and watercourses.

Dust and emission Mitigation

10.18. Residential areas potentially exposed to dust may be present in close proximity to the site and will be regarded as sensitive receptors during construction period. The following three principles are well established and are central to the control measures suggested in this guidance. They follow a hierarchy to control the emissions of dust and other emissions to air, and reduce human exposure:

- Prevention
- Suppression
- Containment

10.19. These principles are embedded in this document and are promoted in a way that is appropriate to the scale of a particular development and the potential exposure of site workers, residential areas and other susceptible receptors. Dust can be created from movement of construction traffic and from general construction activities and can be carried by prevailing winds impacting upon the local area. Construction traffic carrying loose material will be covered to reduce dust generation. This measure will be combined with wheel washing at site access points. A water bowser will be provided for dust suppression on site if necessary and areas of concern can be 'dampened down' during periods of dry weather. If necessary, arrangements will be made for sweeping public highways in the vicinity of the site access using a standard road sweeper.

10.20. The Project Manager will be responsible for determining if additional measures will be required.

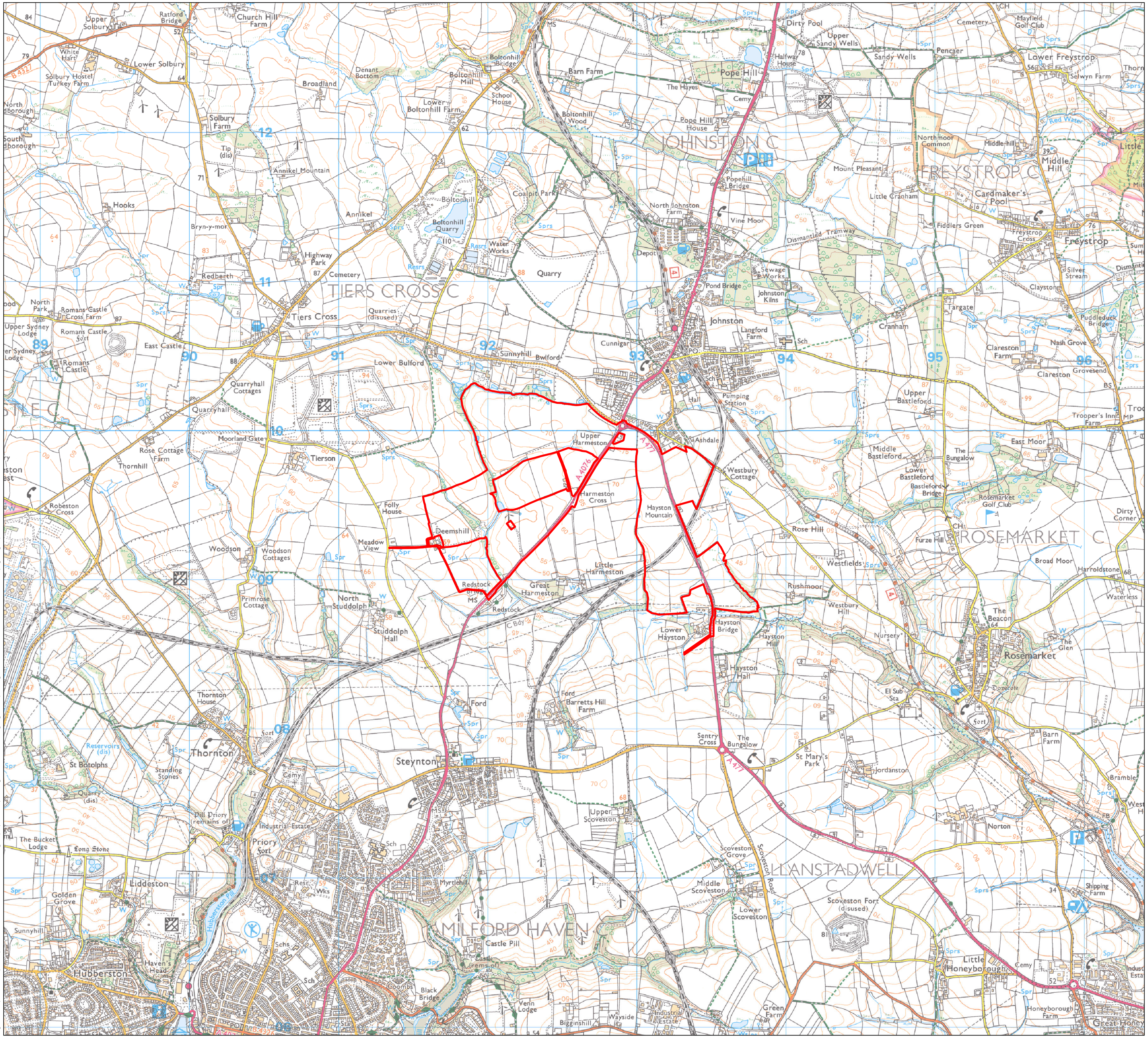
10.21. A site log book will be used to record details and actions taken in response to exceptional incidents or dust causing episodes.

Hydrocarbon Contamination

10.22. Machinery, plant and vehicles have the potential to cause pollution via hydrocarbon contamination. All vehicles and plant used for construction must be maintained to good working order to ensure that there is minimal risk for potential fuel or oil leaks within the site. Refuelling of any plant and site-based vehicles will be carried out by a suitable qualified person to ensure that potential pollution incidents are prevented, and a quick response plan is implemented should a spill occur. Fuel delivery and refuelling will take place in the construction compound.

Appendix

Appendix 1 – Site Location Plan



KEY

Site Boundary

REV	DATE	DESCRIPTION
-	-	-

SITE LOCATION PLAN

GREAT HARMESTON

ARISE RENEWABLE ENERGY UK LTD

DATE	SCALE	DRAWN	APPROVED
08/08/2025	1:25,000@A3	NC	RCH

SHEET	REV	N	0 — 0.5 KM
-	D		

DRAWING NUMBER
P24-1037_EN_03

PEGASUS GROUP