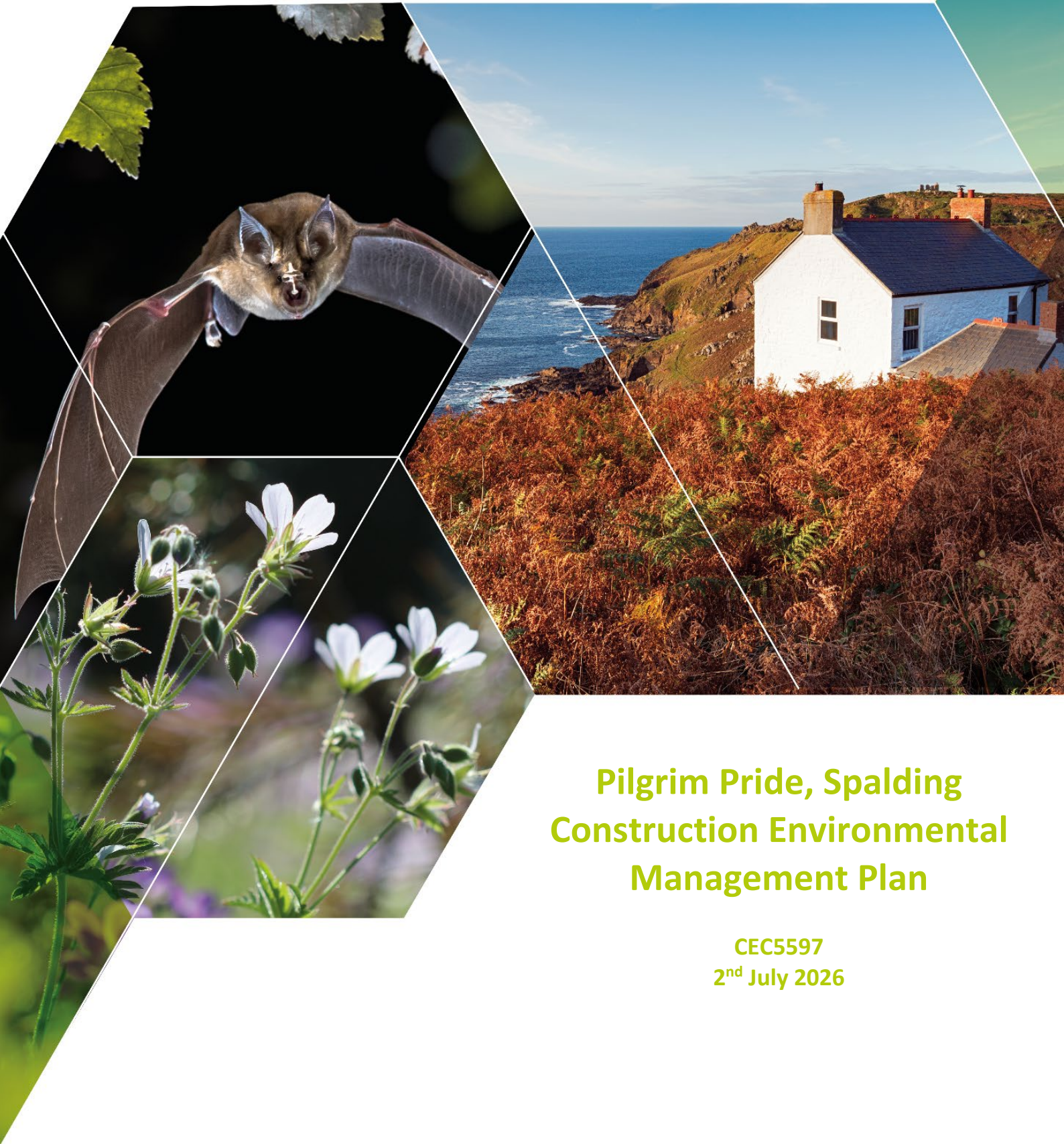




**Pilgrim Pride, Spalding
Construction Environmental
Management Plan**

**CEC5597
2nd July 2026**

Document Control

Revision	Prepared by	Checked by	Approved by
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Disclosure

The information, opinion and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct and the British Standard for Biodiversity – Code of Practice for Planning and Development (2013). We confirm that the opinions expressed are our true and professional bona fide opinions.

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Summary

Site and methods	
Purpose of report	To set out the measures and controls that will be adopted during the construction of the EDF Energy Renewables Ltd Solar photovoltaic (PV) array project to minimise any adverse environmental impacts.
Site assessed	Land Adj Pilgrim's Pride Ltd, Fulney Lane, North Spalding, Lincolnshire.
Area (ha)	c.5 ha
Location:	Grid reference: TF 26284 23169 What3words: ///loaded.navy.common
Planning Authority involved	South Holland District Council (permission granted under H16-0871-24)
Survey methods	CEMP produced as desk-based exercise. Ecologists from Biodiverse Consulting (2024) have previously visited the site to undertake habitat surveys.
Author's name	Rebecca Haines
Date of assessment	Ecological Impact Assessment and Biodiversity Net Gain Assessment completed in 2024.

1. Introduction

1.1. Background

- 1.1.1. Cornwall Environmental Consultants (CEC) Ltd were commissioned by RenEnergy on behalf of EDF Energy Renewables Ltd in October 2025 to produce a Construction Environmental Management Plan (CEMP) for the site at Pilgrim's Pride Ltd, Fulney Lane, North Spalding, Lincolnshire. The approximate location of the site is shown in Figure 1 below.
- 1.1.2. The proposal is to construct a solar photovoltaic array of up to 1.64 MWp as a ground-based system, and associated infrastructure including connecting to the Pilgrim's Pride Factory.
- 1.1.3. The solar array will be sited in a field which lies to the immediate south of the Pilgrim Pride Food factory. The majority of the northern and southern fields will be used for photovoltaic panels to supply the adjacent food production factory. Species-rich grassland will be created within these fields, with areas of tree planting to the south and east of the panels.



Figure 1: Approximate Site location

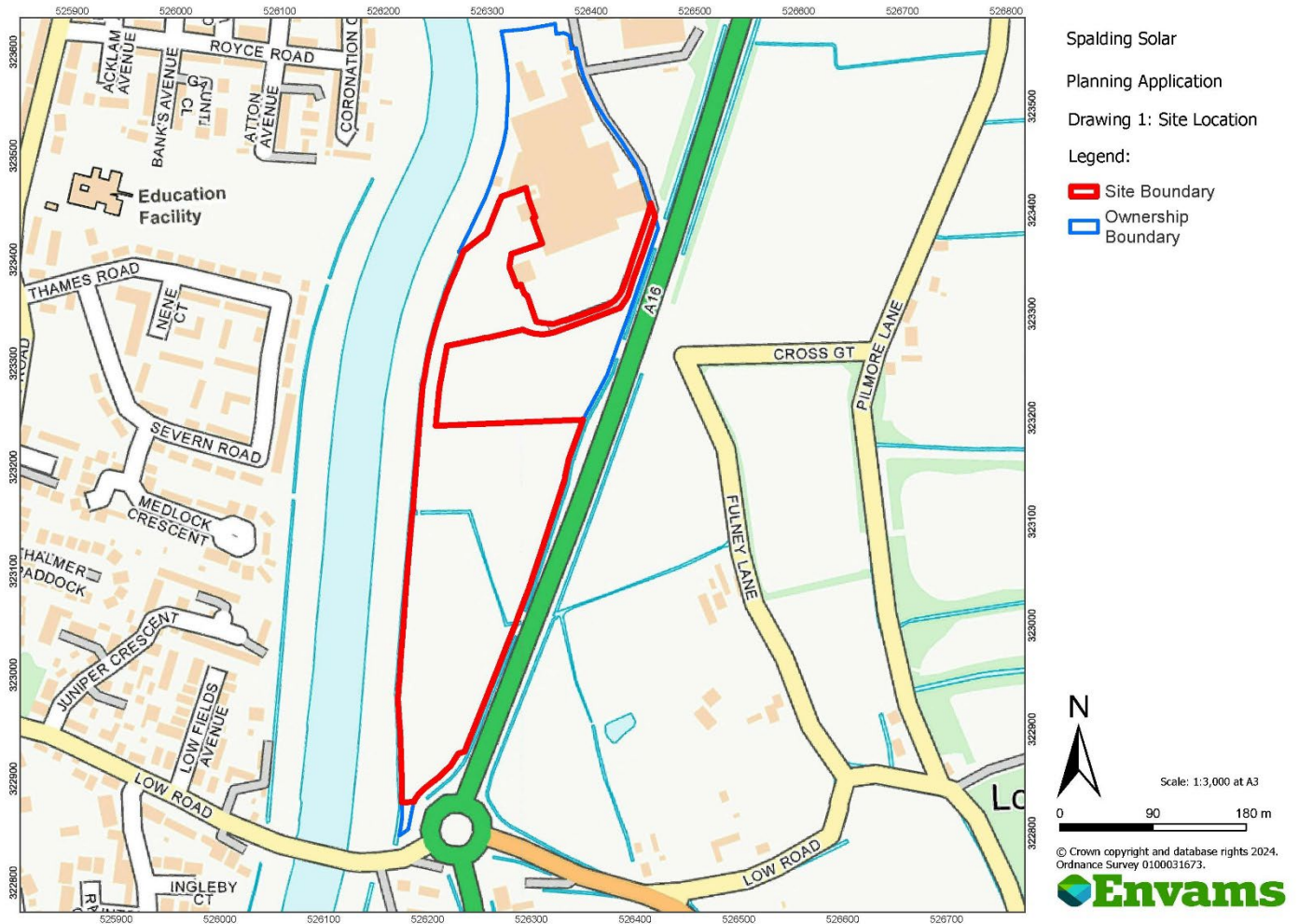


Figure 2: Planning redline boundary

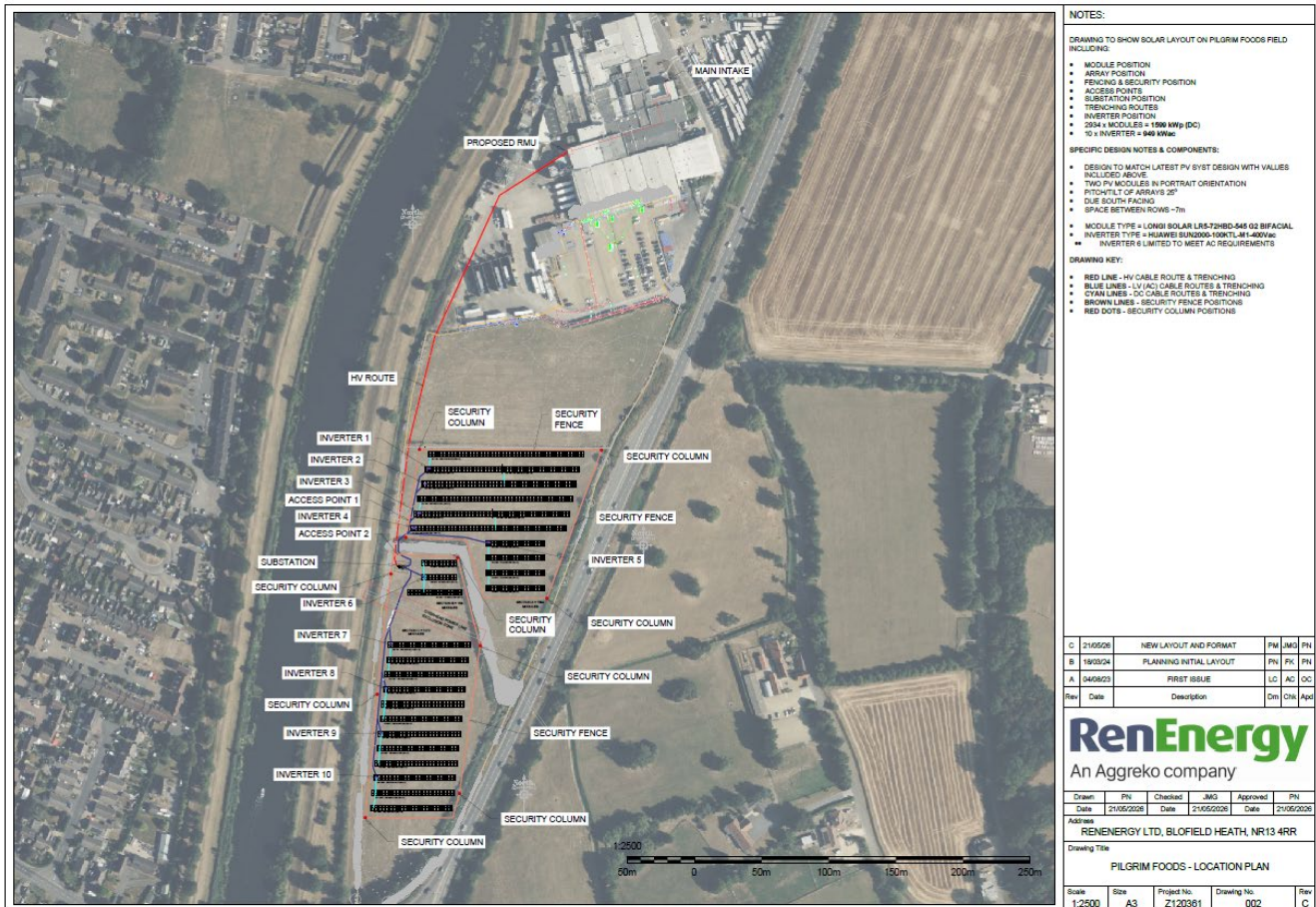


Figure 3: Layout of the solar array within the redline boundary

- 1.1.4. This report has been prepared by Rebecca Haines BSc (Hons) ACIEEM, an Ecologist with four years' experience assessing the likely environmental impacts of construction projects.
- 1.1.5. The purpose of this report is to help the site owner and project contractor minimise adverse impact from activities arising from the construction work on site. The Construction Environmental Management Plan (CEMP) sets out how potentially adverse impacts associated with construction on this site will be managed. The CEMP sets out items for environmental compliance throughout the construction process, covering the management of ecology, landscape, water, and pollution considerations.
- 1.1.6. This report is suitable for submission as part of a planning application, or application to discharge a planning condition, regarding planning application H16-0871-24.
- 1.2. Monitoring and updating**
- 1.2.1. The CEMP is based upon construction best practice and has been produced with input from RenEnergy as the contractor. A subsequent iteration may be required if construction methodologies change, but this is not foreseen at this time. This may be completed by CEC or the appointed contractor.
- 1.2.2. The CEMP is a management and monitoring tool to be used by:

- the client, EDF Energy, and the construction team, RenEnergy, to maintain an overview of the issues affecting the site;
- the Local Planning Authority to monitor the development as it proceeds through the construction and development phases;

1.2.3. The project team will use the CEMP as a tool to ensure continued good practice in the development and management of the site during the construction process. The plan will be updated as required to include any changes to the construction plans that will have a significant impact on the environmental aspects covered by this CEMP.

1.2.4. A record of the development and update of the CEMP will be maintained using the document control table at the start of this report, prior to the contents page.

1.3. Matters addressed

1.3.1. The CEMP provides details of:

- Phasing
- Avoiding impacts on features of ecological interest
- The measures to take should invasive species be found on site
- Working areas and storage compounds
- Dust control
- Noise control
- Working hours
- Pollution prevention

1.4. Objectives of the CEMP

1.4.1. The objectives of the CEMP are to provide guidance and details on the measures that will be taken to safeguard the environment during the construct phase of the development:

- i) To ensure that the ecological mitigation recommendations are taken into consideration at all stages of the development process
- ii) To provide details of measures to control dust and noise
- iii) To prevent pollution incidents
- iv) To ensure that there is an agreed scope of responsibilities for any Ecological Clerk of Works input required

1.5. Development and phasing

1.5.1. This is a simple project to construct a ground mounted solar array on an area of open land to the immediate south of the Pilgrim food production facility. Construction will be undertaken in three phases, over a period of up to 4 months.

1.5.2. Phase 1 is for the ground works and metal framing works. Phase 2 is for the installation of the solar panels and cabling onto the metal framing. Phase 3 is for the electrical tie in and commissioning to the high voltage

(HV) point which is present on site. The HV point is next to engineering office and is within an existing substation.

- 1.5.3. The ground works will include the opening of a narrow trench for a cable to be laid in, running from the solar array to the HV point. The trench will run from the centre of the field to the north, and then up the western edge of the solar array field. The trench will then break out a small area of existing tarmac to cross the current hard standing, before reaching the HV point. Once the cable has been laid the trench will be backfilled.
- 1.5.4. There will be 7m gaps between each run of solar panels, with species rich grassland under laying the array.
- 1.5.5. A temporary construction compound will be constructed to the north of the solar PV array adjacent to the new car park. This compound will be used to house materials and construction plant.
- 1.5.6. In order to keep plant and operatives largely separate on-site the welfare units will lie to the north of the PV field, on an area which is already surfaced with an unbound granular material and will be fenced off to protect it from lorry movements in and out of the site.
- 1.5.7. Construction aims to start in September 2026. The construction timetable is approximately 4 months long and is proposed to run from September – January. The construction timetable allows for 7-10 days piling, 3-4 weeks frame erection and 4-6 weeks mounting panels. These activities will overlap within the overall construction period.
- 1.5.8. Piling will be used for the frame of the panels, this is not a percussive piling methodology. No turf or top soil strip is required. There will not be any spoil heaps, and the trench opened for cable laying will be immediately backfilled once the cable is in place.
- 1.5.9. The galvanised steel will be cold rolled, light weight steel brought to site pre formed. The solar panels will be clipped onto this frame. No haul roads are required as the existing tarmac road within the site runs up the eastern edge of the solar array field. Hauling will therefore be undertaken on the hard standing road, with materials placed at the end of each PV row and then tracked across each row of the array by telehandler. Depending on ground conditions during the construction programme track matting may be used to prevent the site becoming muddy.
- 1.5.10. One or two telehandlers will be used on the project, with a reach of ~10-14m. Piles will be installed from an unmanned soft track (rubber) machine walked beside by person who will remote guide the machine to the correct location using GPS. On occasion a small MEWP Z lift boom may be required.
- 1.5.11. All plant will be hired in serviced (with weekly visits for refuelling etc) so no chemicals or fuel will be stored on site.
- 1.5.12. No wash off/ wheel wash facility is needed, as plant will not be tracking from site to the public highway.
- 1.5.13. A small concrete slab will be needed for the transformer to be sited on. This would be formed from ready mixed concrete delivered to site and poured as required. No wash out of lorries or equipment would therefore be needed on site.

1.6. Construction and access arrangements

- 1.6.1. A traffic management plan is outside the scope of this document, but access for construction vehicles in and out of the site will be from the A16, and then Holbeach Road and Fulney Lane, from which the site has direct access. There are existing lorry movements in and out of this site 24 hours a day, 7 days a week, due to it being a food processing plant. Additional lorry movements associated with the construction of the solar array will be minimal in the context of the current lorry movements from the food processing plant. During the first two weeks of the construction period there will be a set-up phase with plant, welfare,

machinery, piles and steel frame being delivered. Following the initial site set up there will be no lorry movements whilst the steel frames are constructed (construction workers will travel to site in their own vans and park in the compound on site). Once the steel frames are erected the solar modules will arrive, with up to two lorries per week for four weeks.

2. Planning Policy & Legislation

2.1. Planning Policy

National Planning Policy Framework

- 2.1.1. National planning policy is set out in the National Planning Policy Framework (NPPF) (2021). Chapter 15 relates to conserving and enhancing the natural environment.
- 2.1.2. The most relevant policies relating to planning decisions are summarised below:
- Recognising the wider benefits of natural capital and ecosystem services
 - Minimising impacts to and providing net gains in biodiversity
 - If significant harm resulting from a development cannot be avoided, adequately mitigated or compensated for, then planning permission should be refused
 - Proposed development on land within or outside a SSSI likely to have an adverse effect on a SSSI should not normally be permitted
 - Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted
 - Planning permission should be refused for development resulting in the loss of deterioration of irreplaceable habitats
 - By ensuring that new development is appropriate for its location, and that the potential sensitivity of the site is taken into account, planning decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

2.2. Planning Policy

- 2.2.1. The South East Lincolnshire Local Plan (2019) sets out policies relating to the natural environment.
- 2.2.2. Policy 28 relates to all aspects of the natural environment, section 3 relates specifically to biodiversity and addressing gaps in the ecological network. The policy sets out that developments should provide an overall net gain in biodiversity by protecting biodiversity value of land, buildings and trees and minimising fragmentation of habitat, maximising opportunities for restoration, enhancement and connection of natural habitats and species of principal importance, incorporate conservation features on buildings and maximise opportunities to enhance green infrastructure and ecological corridors.
- 2.2.3. Proposals should avoid impacts to designated sites, protected species or species/ habitats of principal importance, and any proposals where such impacts cannot be avoided will only be permitted where suitable mitigation/ compensation can be provided, and if the tests of the relevant legislation are met.
- 2.2.4. Developments should not cause harm to internationally designated sites, on land or at sea.

3. Ecological Mitigation and Enhancement

3.1. Designated Sites

- 3.1.1. A desk study search for statutory designated sites within 2 km of the site was completed at part of the Ecological Impact Assessment (Biodiverse Consulting, 2024).
- 3.1.2. The proposed development site is not situated within or adjacent to any statutory protected sites for nature conservation. The closest statutory protected site is Vernatts Local Nature Reserve (LNR) which is c.1.35 km from the proposed development.
- 3.1.3. The proposed development site is not situated within any non-statutory designated sites for nature conservation. The closest non-statutory designated site is the Coronation Channel Corridor, which lies c. 20 m to the west of the proposed development site.
- 3.1.4. The development site falls within a Special Scientific Interest (SSSI) Impact Risk Zone. Due to its size and type of proposed development no consultation with Natural England is necessary.

3.2. Disturbance to habitats

- 3.2.1. Due to the separation distance and land use between the proposed development site and the aforementioned designated sites the potential for direct ecological impacts is negligible.
- 3.2.2. The Ecological Impact Assessment (Biodiverse Consulting, 2024) reports that the proposed development site does not contain any formally identified NERC section 41 habitats of principal importance and is not part of a formally identified habitat network. It is not mentioned within the report, but the hedge boundaries along the east south and west, as well as running across the development site are likely to qualify as the priority habitat for conservation 'hedgerow' as listed on Section 41 of the NERC Act 2006.
- 3.2.3. In order to ensure environmental good practice and ensure no adverse effects occur to the neighbouring habitats, appropriate measures will be applied throughout the construction programme, including:
- Limiting the use of fuel on site by using fully serviced vehicles which are refuelled on site once a week, but do not require any fuel storage on site
 - Having any on site fuelling (if required) carried out in a designated and appropriately contained area to avoid spillage.
 - Having on site spill kits available at all times
 - Not using external site lighting during the construction phase
 - Minimising the use of noisy construction equipment
 - Following a Pollution Prevention Plan
 - Protecting the remaining intact grassland and scrub habitats during construction by the erection of temporary fencing to prevent 'site-creep'
 - Protecting the boundary hedges to the west and south during construction by the erection of temporary fencing to prevent 'site-creep'
 - Not using site lighting during the months when bats may be foraging (March to November inclusive).

3.3. Protected species

- 3.3.1. An Ecological Impact Assessment (EclA) was undertaken by Biodiverse Consulting in June 2024.
- 3.3.2. The EclA notes that suitable mitigation in the form of Pollution Prevention Guidelines must be applied during construction and operation phases to prevent damage to neighbouring designated sites and habitats.
- 3.3.3. The EclA reports that the hedges surrounding the site have potential to support nesting birds, these will be retained and measures to protect them during the construction phase are included in this report.
- 3.3.4. The EclA also reports that the hedgerows on site afford possible opportunities for foraging and commuting bats. Recommendations for lighting are included in the EclA and have been included in this CEMP.
- 3.3.5. The EclA considers that the grassland field, as well as bordering scrub and hedgerows provide suitable habitat for breeding birds. A Breeding Bird Survey was conducted, which recorded a total of 11 Species of Conservation Concern holding territory in habitats on or adjacent to the development site.

- 3.3.6. The construction is due to start in September, which is within the nesting bird season. The nests and eggs of all wild birds are protected against taking, damage or destruction under the Wildlife and Countryside Act 1981. Therefore, a pre-commencement check must be undertaken by an ecologist no more than five days prior to the commencement of works, to check for nesting birds. If an active birds' nest is discovered, it will be necessary to stop work immediately and create a 10 m exclusion zone in which no works are undertaken until the birds have fledged naturally.
- 3.3.7. The works are unlikely to require large open trenches or excavations (a narrow cable trench is required but will be open for a very short period while the cable is laid, and then backfilled) but should they be required these should be covered overnight to prevent wildlife such as badger and hedgehog falling in and failing to escape and being open to predation. If this is not possible then a strategically placed wooden plank must be laid in the hole at the end of each working day to provide a means of escape for species which may fall into holes or trenches, such as small mammals and amphibians. If any bore pipes are required for the development, then these should be capped at the end of the day to reduce the potential for wildlife entering them and becoming trapped
- 3.3.8. Contractors must ensure that no harm should come to any wildlife by maintaining the site tidily, clearing away any material such as wire or netting, that animals can become entangled in, and preventing access to toxic substances.

3.4. Invasive species

- 3.4.1. The EcIA produced by Biodiverse Consulting in 2024 reported that at that time there were no confirmed specimens of invasive non-native plants or animals present on site, i.e. those species listed in Schedule 9, part 1 or part 2 of the Wildlife and Countryside Act (1981). .

3.5. Ecological Clerk of Works

- 3.5.1. Due to the timing of works (construction is due to commence in September 2026) is it recommend a clerk of works is present to complete a pre-commencement check as described in Section 3.3.7 above.

3.6. Inductions

- 3.6.1. All staff on site will be required to undergo a basic induction and toolbox informing them of the importance of biodiversity issues, as well as the CEMP and their responsibilities and obligations under it. More detailed briefings will be given where staff are to be engaged on particular tasks which have a greater potential to impact on the environment, for example washing of equipment which has contained mortar.
- 3.6.2. Staff will be required to sign a declaration that they have completed an induction.

3.7. Enhancement measures

- 3.7.1. The EcIA (Biodiverse Consulting, 2024) states that all hedgerow and tree line habitats will be retained and enhanced where possible. Habitats beneath and between panels will be created/managed where possible to provide resources to a range of birds, and landscape planting shall include species native to the local areas as well as berry and fruit-bearing species alongside pollinator species, to provide increased foraging opportunities.

4. Construction Method and Control Measures

4.1. Brief description of works

- 4.1.1. The works relate to the installation of a 1.64 MWp ground mounted solar array on an area of open land to the immediate south of the Pilgrim Pride food production facility. Construction will be undertaken in three phases, over a period of up to 4 months (see project proposals in Appendix A).
- 4.1.2. Phase 1 is for the ground works and metal framing works. Phase 2 is for the installation of the solar panels and cabling onto the metal framing. Phase 3 is for the electrical tie in and commissioning to the high voltage (HV) point which is present on site.
- 4.1.3. The ground works will include the opening of a narrow trench for a cable to be laid in, running from the solar array to the HV point. The trench will run from the centre of the field to the north, and then up the western edge of the solar array field. The trench will then break out a small area of existing tarmac to cross the current hard standing, before reaching the HV point. Once the cable has been laid the trench will be backfilled.
- 4.1.4. Piling will be used for the frame of the panels, this is not a percussive piling methodology. No turf or topsoil strip is required. There will not be any spoil heaps, and the trench opened for cable laying will be immediately backfilled once the cable is in place.
- 4.1.5. The galvanised steel will be cold rolled, light weight steel brought to site pre formed. The solar panels will be clipped onto this frame. No haul roads are required as the existing tarmac road within the site runs up the eastern edge of the solar array field. Hauling will therefore be undertaken on the hard standing road, with materials placed at the end of each PV row and then tracked across each row of the array by telehandler. Depending on ground conditions during the construction programme track matting may be used to prevent the site becoming muddy.
- 4.1.6. One or two telehandler's will be used on the project, with reach of ~10-14m. Piles will be installed from an unmanned soft track (rubber) machine walked beside by person who will remote guide the machine to the correct location using GPS. On occasion a small MEWP Z lift boom may be required.
- 4.1.7. All plant will be hired in serviced (with weekly visits for refuelling etc) so no chemicals or fuel will be stored on site.
- 4.1.8. A small concrete slab will be needed for the transformer to be sited on. This would be formed from ready mixed concrete delivered to site and poured as required. No wash out of lorries or equipment would therefore be needed on site.

4.2. Construction timetable

- 4.2.1. Construction aims to start in September 2026. The construction timetable is approximately 4 months long and is proposed to run from September - January. The construction timetable allows for 7-10 days piling, 3-4 weeks frame erection and 4-6 weeks mounting panels. These activities will overlap within the overall construction period.

4.3. Parking of vehicles and construction plant

- 4.3.1. A temporary construction compound will be located adjacent to the newly constructed car park. The compound will be large enough for all construction vehicles and will be used as the construction compound, and no parking on neighbouring roads will be needed. This compound will be used to house materials and construction plant.

4.4. Materials storage

- 4.4.1. There is sufficient space within the compound for materials to be stored on site. Materials to be stored are outlined in section 4.1.
- 4.4.2. Loading and unloading of materials will take place within the compound.
- 4.4.3. Waste will be placed into a skip immediately, ready for storage and then removal from site. Plant and materials will be stored in the site compound area.
- 4.4.4. Pedestrian walkways and vehicle routes will be segregated and marked out with appropriate barriers.
- 4.4.5. No flammable materials will be stored near existing buildings. Storage of flammable materials around new buildings under construction will be strictly monitored and controlled.
- 4.4.6. No requirement for storing fuel on site is foreseen, as fully serviced plant will be hired in, which is refuelled on site each week during service visits from the plant hire company. However, if fuel does need to be brought to site it will be stored in a double skinned bunded tank to comply with Environment Agency Guidance.
- 4.4.7. On site fuelling will be carried out in a designated and appropriately contained area of the compound to avoid spillage.
- 4.4.8. Plant will be stored on site in an orderly fashion. Keys will be removed and isolators, if fitted, will be activated.

4.5. Security fencing

- 4.5.1. The project area is not residential in nature and so no hoarding is considered necessary.
- 4.5.2. The site has existing fencing and security, and no additional design will be required.

4.6. Wheel washing

- 4.6.1. No wash off/ wheel wash facility is needed, as plant will not be tracking from site to the public highway.

4.7. Measures to control the emission of dirt and dust during construction

Dust

- 4.7.1. Dust is considered to be any airborne particulate matter up to 75µm in diameter. Dust may cause or contribute to health issues and air pollution as well as adverse ecological impacts to both aquatic and non-aquatic plants and animals.
- 4.7.2. Health issues including eye, nose and throat irritation and respiratory complaints may result and in more severe cases dust related diseases can include lung cancer, silicosis, chronic obstructive pulmonary disease, and asthma.

4.7.3. When suspended in water (e.g. by using water to suppress dust generation) dust particles become silt, and this is also addressed.

4.7.4. Those who may be impacted by dust include:

- Site personnel
- The local community
- Ecological receptors

Dust sources

4.7.5. The potential for generation of dust during the construction works is considered very limited. Works do not involve demolition, and the solar panels will be installed onto the existing grass area.

4.7.6. Works that may have the potential to generate dust in this project are the following:

- Localised use of concrete / mortar mixing may produce silica dust, concrete is only likely to be needed for one small sub-station base
- Cutting and lifting of tarmac. e.g. using handheld or machine mounted breakers may produce silica dust. Only a small area of tarmac break out will be needed to cross an internal access road with a single electric cable.
- Material stockpiles
- Dry paved car park
- Exposed soil, should the works take place in summer (this is not envisaged with the current construction timetable)

Mitigation for dust

4.7.7. Table 6.1 Risk identification and controls: Source-Pathway-Receptor below outlines the potential sources of pollution from dust and particulates and the potential impacts and control measures which will be put in place.

4.7.8. For the above activities, and any other activities that may generate dust, the Contractor is to control any emission of dust through use of appropriate containers and dust catchers, as well as dampening down any surfaces that may have the potential to generate dust. Dust control measures include:

- All vehicles should to turn off engines when not in use – no idling vehicles
- All loads entering and leaving site to be covered, other than for inert building materials such as the steel panel frames, or the panels themselves
- No site runoff of water or mud – separate site construction vehicles from delivery vehicles
- Wash roads around the site if dust and mud becomes an issue (this is unlikely due to the nature of the project)
- Use clean water as dust suppressant, if required

- Cutting equipment to use water as suppressant or suitable local exhaust ventilation systems
- Personnel to wear appropriate PPE (correctly fitted and specified dust masks)
- Securely cover skips
- Minimise dust generating activities, particularly on high wind days
- Keep stockpiles for the shortest possible time
- Cover stockpiles with tarpaulins
- Use screens around scaffolding
- Use enclosed chute systems for filling skips from height
- Monitor dust generation, maintain records (source / date / time) of significant dust emissions, and record remedial action / changes to operational procedures to prevent recurrence.

Impact assessment for dust

- 4.7.9. With the above measures in place direct dust effects on any public receptors other than the users on site are therefore unlikely.
- 4.7.10. With the above measures in place direct dust effects to the environmentally sensitive receptors within and close to the site are unlikely.

Mud on roads

- 4.7.11. Dirt on public roads is not anticipated due to the nature of the works and the surfaced existing car park which will continue to be used.

Materials storage, stockpiles and exposed ground

- 4.7.12. Exposed ground and materials stockpiled on site, such as soils, hardcore and sand, can pollute water and air with silt and dust. Stockpiles can cause dust pollution from wind-blown dry material. When managing stockpiles and exposed ground, measures are needed to prevent pollution. For example, silty water can be produced from rainfall run-off or poorly managed / excessive damping down of your stockpile. If this silty water enters surface waters or a surface water drain, this will cause pollution. Silt damages the environment by killing plants and animals in the watercourse and can block drains causing flooding.
- 4.7.13. Due to the nature of the project no stockpiles of soil, hardcore or sand will be needed since the solar array will be fixed to frames piled directly into the ground, without needing to expose the soil.
- 4.7.14. Skips will be present on site at all times for packaging materials to prevent blown waste polluting the site and adjacent areas.

Oil storage and refuelling

- 4.7.15. Oil is one of the most common pollutants in the UK. Spilt oil can pollute streams, rivers and (if it soaks through the soil and rock) groundwater supplies which can be used for drinking water. Oil is toxic and harmful to plants and animals and is a threat to their habitats. A small amount of oil can cause a large problem; five litres oil can pollute an area of water the size of two football pitches.

- 4.7.16. Oil includes petrol, diesel, heating oils, biofuels, lubricating and hydraulic oils, synthetic and mineral oils, biodegradable, shuttering and cutting oils, and waste oils.
- 4.7.17. No requirement for storing fuel on site is foreseen, as fully serviced plant will be hired in, which is refuelled on site each week during service visits from the plant hire company. However, if fuel does need to be brought to site it will be stored in a double skinned bunded tank to comply with Environment Agency Guidance. Spill kits will be kept on site at all times, and tool box talks will be delivered to ensure site staff know how to use and safely dispose of the spill kits.

Cement, concrete and grout

- 4.7.18. Cement, concrete and grouts are highly alkaline and corrosive and can cause serious pollution to the ground and watercourses. Water wildlife, such as invertebrates and fish, are very sensitive to changes in pH (acid/alkaline) levels. Whereas oil in water is easy to see, changes to pH are not, so pollution can occur for some time before the extent of damage to wildlife is noticed.
- 4.7.19. Whether storing, making, mixing or using, all construction staff must care with all works involving cement, concrete and grout.
- 4.7.20. The only aspect of the construction programme likely to need concrete is the creation of a base for a small electricity substation. Concrete for this purpose would be brought to site in a ready mixed concrete tanker, and so no concrete mixing on site will be required.

Chemicals and hazardous substances

Background

- 4.7.21. All chemicals and hazardous substances or materials you store and use such as oils, cleaning products, solvents and pesticides could cause pollution if they spill onto land, enter surface waters or groundwater or are released into the air. If you cause or allow pollution to occur you may be prosecuted and fined. Your business could suffer from lost contracts, downtime and have to pay clean-up costs and increased insurance premiums.
- 4.7.22. 'Safety Data Sheet (SDS)' should be provided with chemicals and hazardous materials by the supplier, or manufacturer. If you receive a chemical without an SDS, contact your supplier to find out whether or not they have to provide one. Follow these instructions carefully as they tell you how to store, use and dispose of chemicals and hazardous materials safely.
- 4.7.23. This section should be read in conjunction with NetRegs to ensure you are familiar with the latest legal requirements.

Pollution prevention from chemicals and hazardous substances

- 4.7.24. It is not likely that chemicals and hazardous substances will need to be used on site due to the nature of the project. However, should chemicals need to be brought to site the following will be followed:
- All chemicals will be stored in a contained, bunded area on an impermeable surface.
 - Chemicals and hazardous substances will be stored away from areas where there is risk of damage from impact or collision e.g. site traffic.
 - Chemicals and hazardous substances will be labelled, and containers will be sealed when not in use

- Chemicals and hazardous substances will be inspected regularly and fit for purpose i.e. free from damage, without leaks.
- Chemicals and hazardous substances will be disposed of in line with the contractor's duty of care requirements, these may be considered hazardous waste.
- The contractor will have incident / emergency plans to help them deal with spills, and train individuals how to use them.
- The contractor will ensure that incident / emergency equipment is available at the storage point and use points.
- The contractor will train staff in the use of spill kits / emergency procedures.
- The contractor will ensure there is a designated 'responsible person' on site at all times to coordinate response.
- The contractor will ensure that SDS sheets are available with emergency plans.
- The site manager will lock storage facilities when not in use.

Using chemicals and hazardous substances

4.7.25. Should any chemicals or hazardous substances be needed on site the contractor will:

- Limit orders to what is needed.
- Place containers of chemicals and hazardous substances in suitable secondary containment such as drip trays when in use on site; this will contain any spillage.
- Only take the chemicals and hazardous substances needed for each particular job.
- Keep containers sealed on site when not directly being used.
- Return any unused substances to storage facilities at the end of the day.
- Ensure that incident / emergency equipment is available at storage points and use.
- Establish incident / emergency plans to help you deal with spills and train staff how to use them.
- Deal with waste appropriately.

Further considerations for chemicals and hazardous substances

- The contractor will reduce quantities of chemicals and hazardous substances on site – there are also health and safety and financial benefits associated with this.
- The contractor will develop the method of work to attempt to replace hazardous products with non-hazardous alternatives.
- The contractor will ensure that a responsible person is designated to control the issuing of chemicals and hazardous materials.

4.8. Measures to control noise

- 4.8.1. Construction sites can cause significant levels of noise. Construction works include the demolition, maintenance, repair, erection, construction of buildings or roads and any work of engineering construction.
- 4.8.2. Much of this noise is unavoidable and noise control methods are a balancing act between the needs of the developer to carry out the works and the rights of neighbours and nearby environmental receptors to the quiet enjoyment of nearby land.
- 4.8.3. The contractor will comply with BS 5228 'Code of practice for noise and vibration control on construction and open sites'.
- 4.8.4. The contractor will be held responsible for ensuring that all plant and equipment, including any which may be on hire, is well maintained, properly silenced and used in accordance with the manufacturer's instructions, as required by the above British Standard.

Background information – baseline

- 4.8.5. The development is not sited in a residential area, and there are no environmentally designated sites within 1km of the site. However, there are hedges adjacent to the site, which may support dormice, and are likely to support breeding birds in the spring and summer.

Potential noise generating activities

- 4.8.6. Potential noise generating activities on site include:
 - Noise from tools and machinery
 - Delivery and handling of materials
 - Unloading and loading of delivery vehicles
 - Loading of skips
- 4.8.7. These activities will occur during work hours only and best practice in their operation will be applied so as to minimise any potential noise disturbance emitting from these activities.

Measures to reduce noise

- 4.8.8. The contractor will adopt the following measures.
 - Scheduling certain works to more acceptable times of day. Working hours are proposed as Monday – Friday (max) 8.00am to 5.00pm and Saturday mornings 8.00am to 1.00pm
 - Use of the quietest plant and equipment which is properly maintained and silenced
 - Use of the least intrusive method of work.
 - Proper instruction and supervision of staff

4.9. Drainage

- 4.9.1. Drainage systems can act as a pathway to spread pollutants. Small amounts of pollutants (such as oil) can spread large distances in water. Drains can also make pollution invisible; a large scale pollution incident can happen on site without you even knowing it. The location of drains on site must be identified, and where they lead (e.g. surface water, foul water). Then polluting

materials can be prevented entering the drains.

Essential pollution prevention

- 4.9.2. All potential pollutants must be prevented from entering the drains to prevent pollution of watercourses.
- 4.9.3. Permission must be obtained from the EA or the local sewerage provider before discharging anything other than clean uncontaminated surface water to a drain and other surface waters or groundwater. Apply for permission early, as authorisation can take time (perhaps up to four months once a full application has been submitted).
- 4.9.4. Due to the nature of the work there should be no pollutants leaving the site and entering drains or watercourses. However, prior to commencing works the contractor will inspect the site to identify existing drainage on site including:
 - Surface water drains and soakaways
 - Land drains
 - Foul water and combined sewers
 - Identify if drains have existing protection, e.g. oil separators such as interceptors and silt traps.
 - Identify pollution risk; what types of pollution could enter the drains? No pollutants – such as silt laden water, oil/fuel or vehicle / cement washings – should enter surface water drains.
- 4.9.5. Include drainage in Incident Plans. See Incident Response Section 4.11.
- 4.9.6. If any pollutant enters a drain, immediately stop the pollution with a physical block, stop the activity causing the pollution, then notify EA for surface water drains or the local sewerage provider for foul water drains. If there's a spill, accident or emergency, try and prevent pollutants entering the drains. See Incident response Section 4.11.
- 4.9.7. Keep records of all occasions when pollutants have entered drains and/or watercourses and/or un-made up ground and the action taken. See Incident response Section 4.11.

Foul water on site

- 4.9.8. Welfare facilities be required for the construction staff and serviced welfare units with toilets will be brought to site prior to construction commencing. These will be removed from site in order to be emptied at a suitable facility.

Informing local residents

- 4.9.9. The site lies within an existing food processing plant, in an industrial setting, and has no near residential receptors.
- 4.9.10. Any calls regarding noise and / or dust will be logged and a record of follow-up action maintained.

4.10. Waste Management

- 4.10.1. Waste has a complex legal definition but is essentially something that is discarded by its holder. It is important to recognise that discarding does not simply cover disposal but can include recovering or reusing an item or material.

- 4.10.2. Poor waste management is a common cause of pollution at construction and demolition sites; for example, failing to comply with 'duty of care' leading to illegal disposal of waste such as fly tipping, illegal disposal such as burning of waste on site causing air pollution, or emissions caused by the transportation and break down of the waste in landfill sites. This guidance focuses on preventing direct pollution from wastes, and doesn't consider indirect pollution such as energy use, methane and CO2 emissions from treatment and disposal.
- 4.10.3. There is a range of waste legislation you need to comply with and many sources of guidance to help you which must be considered for your site when managing waste. This section should be read in conjunction with NetRegs to ensure you are familiar with the latest legal requirements.
- 4.10.4. Within the site compound two types of skip will be provided, one for general waste and one for recyclable waste. These will be of a covered/ lidded design. When full these will be taken away and exchanged for empty replacements.

Essential pollution prevention

- 4.10.5. Everyone on site must comply with the waste 'duty of care'; this means you must:
- Store your waste safely and securely on site e.g. prevent windblown materials such as plastics leaving your site; covered skips and bins will assist this
 - Prevent any liquid wastes leaching from bins or skips – this includes dry wastes that may become wet, e.g. through exposure to rain; check your waste storage has no holes or damage
 - Develop a site procedure for selecting and managing waste contractors, those that remove your waste, to ensure that you meet your duty of care requirements
 - Only pass your waste to authorised persons and companies
 - Have appropriate duty of care documentation, i.e. completed waste transfer notes or consignment notes for hazardous waste for each load of waste removed from the site
 - Prevent hazardous wastes being mixed with other hazardous wastes or non-hazardous wastes
 - Keep all waste transfer notes and consignment notes for 2 and 3 years respectively.
- 4.10.6. Further considerations
- Using Site Waste Management Plan (SWMP) even when not a legal requirement, will help you comply with most waste legislation and reduce the amount of waste you generate. They will also help save you money as well as reduce pollution risks.
 - Ensure materials aren't over-ordered to avoid waste in the first place.
 - Lock waste storage areas, bins and skips.
 - Perform checks on end disposal of waste to satisfy yourself that your contractors are complying with legislation and record your findings.

4.11. Incident Response

- 4.11.1. Although careful planning and preparation reduces the risks of a pollution incident, accidents

can still happen. Be prepared! If site workers know how to deal with an incident, and can use the necessary equipment, they can help prevent the pollution spreading and minimise damage to the environment.

- 4.11.2. There is a range of guidance available to help you create a pollution incident response plan for your site see NetRegs.

Essential pollution prevention

- 4.11.3. Nominate an individual to have responsibility for the incident plan; this person will be the site contact for incidents, i.e. 'responsible person'.
- 4.11.4. Identify where pollution incidents could happen on site.
- 4.11.5. Develop a pollution incident response plan for your site. This is a short document that outlines the actions you could take to minimise the pollution caused by an incident. Each site needs its own plan as it has its own specific requirements, so do not simply copy plan from a previous site.
- 4.11.6. The plan should include:
- Stop – how to stop pollution occurring in the first place
 - Contain – how to contain the pollution at source and prevent further spread
 - Notify – who to inform of the incident; this may be site management, environment manager, principal contractor and us
 - Decide – in consultation with us evaluate significance of incident
 - Clean up – how to deal with pollution clean-up and disposing of the waste in accordance with waste regulations.
- 4.11.7. Train site staff and contractors how to use the plan and equipment such as spill kits – using tool box talks.
- 4.11.8. Test your plan.
- 4.11.9. Include daily visual inspections into your incident planning.
- 4.11.10. Never wash any spilt oil, chemicals or other pollutants away into drains or into the ground or use detergents to clean up the oil; you could cause a more serious pollution incident.

Reporting incidents

- 4.11.11. You should report all pollution incidents as soon as possible to:
- Site management
 - EA Hotline: 0800 80 70 60 (freephone, 24 hour service)
- 4.11.12. This will allow:
- The EA to assess the incident's environmental impact and attend the site if necessary
 - The EA to advise you on action to minimise the environmental damage, and reduce clean-up costs

- Site workers to learn from the incident and reduce the risk of a more serious incident occurring in the future
- Self-reporting through your company's Environmental Management System (EMS), or other defined means
- If you don't report an incident and it is later traced back to your site, this will be taken into account when the EA decide what enforcement action to take.

5. Pollution Prevention Plan (PPP)

5.1. Introduction

- 5.1.1. The objective of this PPP is to ensure prevention of pollution to land or water, compliance with current environmental legislation, and to provide a benchmark for best practice in order that all possible preventative measures will be taken to avoid pollution of land or the water environment.
- 5.1.2. Since 2015 the Environment Agency no longer issues 'best practice' guidance on pollution prevention (formerly PPGs) and it is the responsibility of the contractor and their client to ensure that pollution events do not occur.
- 5.1.3. The following information is largely taken from the previous EA guidance documents and will help the contractor to produce a tailored Pollution Prevention Plan for the site. Further information which the contractor may find useful is contained in Appendix B.

5.2. Background information – baseline

- 5.2.1. The development is not sited in a residential area. There are designated sites within 1 km of the proposed development site, ecologically sensitive habitats within and close to the site, including grassland, hedges and trees.

5.3. Responsibility

- 5.3.1. The principal contractor will be responsible for pollution prevention for the duration of the contract until the project is constructed and the works are adopted by the Client.
- 5.3.2. The principal contractor will be responsible for obtaining all the necessary consents, licences and permissions required for their activities under current legislation regarding environmental protection.

5.4. Potential pollution sources

- 5.4.1. There are a number of potential sources of pollution from construction works which could adversely impact upon both terrestrial and aquatic ecosystems:
 - Run-off from the compound, car park and material stockpiles;
 - Refuelling areas;
 - Leaking/vandalised plant and equipment.

5.5. General pollution prevention measures

- 5.5.1. The following are general pollution prevention measures which will be adopted:
 - Precautions will be taken to ensure the protection of the local environment and groundwater against pollution and silting
 - Any material or substance which could cause pollution, including silty water, will be prevented from entering surface water drains or water courses by the use of a contained area for washing of equipment.

- If fuel needs to be brought to site it will be stored in a double skinned bunded tank to comply with Environment Agency Guidance, and refuelling will take place in a contained area to the west of the building, within the site compound.
- Spill kits will be kept on site at all times, and tool box talks will be delivered to ensure site staff know how to use and safely dispose of the spill kits.
- No areas of the site other than the existing car park are to be used for materials storage, parking etc.
- All stockpiled materials will be stored in designated areas within the existing car park area.
- A Personnel Site Induction/ Toolbox Talk will make specific reference to required pollution prevention measures.
- All works will be carried out in accordance with best practice and will aim to prevent any impact to the surrounding environment deterioration in.
- In the event of a pollutant spillage on site, the material will be contained (using an absorbent material such as sand or soil or commercially available booms) and the Environment Agency (EA) will be notified immediately using the EA emergency hotline number 0800 80 70 60.

5.6. Principal Contractor Requirements

- 5.6.1. The principal contractor will be required to prepare a detailed PPP prior to commencement of works within each area of the site. This will be an evolving document, addressing specific working areas or activities and will be reviewed at regular meetings.
- 5.6.2. The PPP must be prepared with the aim of preventing impacts to the surrounding environment, in particular the Local Wildlife Site (LWS) which lies to the west of the site.
- 5.6.3. The detailed PPP will include procedures with regard to:
 - Fuel handling
 - Details for training in pollution prevention matters
 - Details of pollution prevention equipment, such as where spill kits are located, how to use them, and how to dispose of them safely
 - Monitoring of mitigation measures
 - Works may be suspended at any time where a potential risk from pollution is identified and resulting harm may be caused to land, water or human health, or where construction methods and mitigation measures are not as specified within the construction method statements and relevant plans as submitted and agreed.

6. Pollution Prevention Plan

6.1 Risk identification and controls: Source-Pathway-Receptor

Table 1: Source-Pathway-Receptor

Ref. no.	Source	Pathway	Receptor	Potential impact / affect	Control Measures
1.	Silt & Dust Materials storage – surface water drainage and run-off from stockpiles.	• Drainage over land	• Site staff, environment	Reduces available oxygen in water with subsequent impact on biodiversity and water quality. Coats gills of fish. Covers aquatic plants. Accumulation of silt can smother fish eggs and affect larval development.	Source - Minimise materials stored on site (materials will include pre-formed steel frames, solar panels, materials for electrical connections) - No soil strip/ earthworks etc stockpiles are required for this project Pathway - No pathway from materials currently proposed to be stored on site. If stockpiles are required this section will need to be updated. Receptor - If any suspected incident occurs contact the Environment Agency hotline number 0800 80 70 60 - Clean up pollution incident – remove silt
2.	Cement / concrete wash water (high alkalinity) Using only to build concrete slab for transformer	• Wash off from site	• Site staff, environment	Plaster and cement are very alkaline and corrosive, toxic to aquatic organisms and can cause serious pollution.	Source - Ready mixed concrete delivered to site - No need for washing out lorries or equipment on site. Pathway - No pathway from materials and methods currently proposed to be stored on site. Receptor - If any suspected incident occurs contact the Environment Agency hotline number 0800 80 70 60 - Clean up pollution incident – remove silt

Ref. no.	Source	Pathway	Receptor	Potential impact / affect	Control Measures
3.	Hydrocarbons – oil, diesel Vehicle movements – oil and fuel leaks	- Wash from roads and site compound - Infiltration into ground	Site staff, environment	Oil and diesel form a film on the surface of water, restricting the supply of oxygen and suffocating aquatic life. Water supplies can be damaged, including industrial abstractions.	Source - All vehicles on site will be maintained in good working order, regularly serviced and checked for leaks. - It is not envisaged that fuel for plant will be needed on site due to the nature of the works. However, if fuel does need to be brought to site it will be stored in a double skinned bunded tank to comply with Environment Agency Guidance. Pathway - All refuelling activities to be undertaken within existing car park area. Receptor - Undertake daily visual inspections of site for any signs of pollution - Spill kits will be readily accessible in case of spillage / leaks - Spillage / leak reaching catchment - Contact the Environment Agency hotline number 0800 80 70 60 - Clean up pollution incident - Spillage / leak on land – remove contaminated material and dispose of to authorised facility
4.	Chemicals Eg solvents, lubricants, admixes	- Wash off from roads. - Drainage over land - Infiltration into ground	- Surface water drain - Watercourses and water bodies - Groundwater - Site staff - Environment	Chemicals can be extremely toxic to fish and other aquatic life. Water supplies can be damaged, including industrial abstractions.	Source - Storage – chemicals will be stored within a secure lockable structure - Storage – chemicals will not be stored on the eastern side of the building - Storage – chemicals will be stored within secondary container designed to hold 110% of the container being stored - Storage – chemicals will be stored upright with lids / caps closed tightly - COSHH Assessments will be available within the storage structure for all chemicals stored on site Pathway - Swales or other suitable barriers will be constructed around vulnerable watercourses to contain any spillages Receptor - Undertake daily visual inspections of watercourses on and near the site for signs of pollution - Spill kits will be readily accessible in case of spillage / leaks - Spillage / leak reaching catchment - Contact the Environment Agency hotline number 0800 80 70 60 - Clean up pollution incident - Clean up pollution incident

Ref. no.	Source	Pathway	Receptor	Potential impact / affect	Control Measures
5.	Rubbish & Litter	Carried around the site by wind and water.	- Watercourses - Wider landscape - Site staff - Environment	Litter can be a danger to wildlife, is unsightly and can block drainage systems leading to backing up and flooding. Litter and rubbish can attract vermin, leading to potential issues for human health.	Source - Litter bins and skips will be provided for rubbish - Containers will have lids to prevent litter being blown around the site Pathway - Compounds for skips and bins will be located within the existing car park area, fenced to reduce wind-blow, and covered when removed from site Receptor - Regular inspections and litter picking will be undertaken to ensure site and surrounding environment is kept free from litter
6.	Sewage & Effluent Spills and leaks from site welfare facilities e.g. temporary toilets Disruption to existing underground site infrastructure	Surface water drainage	- Surface water drain - Watercourses and water bodies - Groundwater - Environment	Sewage and effluent can have a devastating effect on aquatic life, reducing oxygen levels in water and introducing toxins to the water environment.	Source - Serviced welfare units with toilets will be brought to site prior to construction commencing. These will be removed from site in order to be emptied at a suitable facility. Pathway - Swales or other suitable barriers will be constructed around vulnerable watercourses to contain any spillages Receptor - Undertake daily visual inspections of watercourses on and near the site for signs of pollution - Spill kits will be readily accessible in case of spillage / leaks - Spillage / leak reaching catchment - Contact the Environment Agency hotline number 0800 80 70 60 - Clean up pollution incident - Clean up pollution incident

7. References

- Bat Conservation Trust (2018). Bats and Artificial Lighting in the UK Guidance Note. Bat Conservation Trust, London.
- Biodiverse Consulting Ltd (2024) Ecological Impact Assessment. Biodiverse Consulting Ltd: Newcastle-Upon-Tyne
- British Standards Institute (BSI) (2013) Biodiversity – Code of Practice for Planning and Development BS42020:2013.
- British Standards Institute (BSI) (2009) Biodiversity BS5228 - Code of practice for noise and vibration control on construction and open sites
- CIEEM (2017) Guidelines for Ecological Report Writing. Available from: <https://www.cieem.net/guidelines-for-ecological-report-writing> [last accessed 3rd December 2021]
- Cornwall Council (2016) Cornwall Local Plan: Strategic Policies 2010-2030. Available from: <https://www.cornwall.gov.uk/environment-and-planning/planning/planning-policy/adopted-plans/> [last accessed 3rd December 2021]
- HM Government (2017) The Conservation of Habitats and Species Regulations 2017. HMSO, London.
- HM Government (2006) The Natural Environment and Rural Communities Act 2006. HMSO, London.
- HM Government (1981) The Wildlife and Countryside Act 1981. HMSO, London.
- HM Government (2000) The Countryside and Rights of Way Act 2000. HMSO, London.
- HM Government (1992) Protection of Badgers Act 1992. HMSO, London.
- HM Government (1981, as amended) The Wildlife and Countryside Act 1981 (as amended). HMSO, London.
- JNCC [Joint Nature Conservation Committee] (2011a) UK BAP Priority Species and Habitats. Available at: <http://jncc.defra.gov.uk/page-5705> [accessed 3rd December 2021].
- JNCC (2010) Handbook for Phase 1 Habitat Survey - A Technique for Environmental Audit. ISBN 0 86139 636 7.
- UKHab Ltd. (2023) UK Habitat Classification System v. 2.01. Available from: <https://www.ukhab.org/>

8. List of Appendices

A. Pollution Prevention Planning

A. Pollution Prevention Planning

Allowing time to plan and prepare before work starts on site can significantly reduce the risk of a pollution incident.

Once potential sources of pollution are identified, measures can be put in place to avoid or reduce the risk of causing pollution.

Planning will:

- help make the job run smoothly
- improve risk management, reducing risk of pollution incidents and fines
- help identify efficiencies and potential cost savings
- improve relationships with clients, local regulators and neighbours and reduce the likelihood of complaints
- reduce damage and clean-up costs if an incident does happen

This section explains four steps that can be taken to reduce the risk of causing pollution.

Step 1 – Know your risks

Take time out to plan; a few hours can make all the difference.

Ask yourself: where could pollution occur and what are the pathways for pollution? The site drawings and plans should help with this.

Has any environmental information been provided in the contract/planning documents? These often identify pollution potential and should be reviewed and understood. Identify:

- what activities you are likely to carry out that could cause pollution and their location
- what might increase the risks of your activities causing pollution
- all your interested groups i.e. regulators and neighbours

Identify surface waters and groundwater on, under or adjacent to your site. This also includes any small (dry) ditches capable of transporting water.

Find out if the groundwater is in a protected zone as you may need to take extra steps to prevent pollution.

Identify legislation that applies to your project and make sure you understand how it affects your site and your responsibilities. See NetRegs.

Identify what permissions you may require from us (e.g. abstraction, discharge, section .61, temporary flood defence); pay particular attention to Environmental Permitting Regulations (in England and Wales).

Consult your environment advisor / manager if you have one.

Consult your existing Environmental Management System; if you or your company has one, this will provide valuable guidance for pollution prevention.

Decide which pollution risks are most significant to your project and focus on these first. All risks should be addressed ultimately. Review the following sections of this document for guidance that relates to your site.

At the planning stage it is important to consider the potential for deliveries and vehicles on site to cause pollution and how you will manage silty water generated by your project. The following guidance will assist you to manage these risk.

Deliveries and vehicles on site

Deliveries to site can be a common cause of pollution.

Vehicles can cause water, noise and dust pollution as they enter and exit site, for example by spreading mud or contaminated material on neighbouring roads. Pollution can also be caused at the point of delivery, especially with fuels, oils and hazardous materials; for example, a fuel hose not correctly connected and leaking, or when the area is unsuitable for storing that material.

Identify an area where all deliveries will be completed, and communicate the requirements to suppliers and those working on site.

Ensure all deliveries are made as far away from watercourses and drains as possible.

Define times for deliveries to site and communicate these to suppliers and those working on site. Make sure these delivery times are suitable for neighbours, i.e. after 9am.

Ensure any tanks, drums or containers coming to site are in a satisfactory condition – check for damage or leaks.

Clearly define delivery and material storage areas.

Design one way systems for vehicle movements to minimise vehicle reversing alarm nuisance, including turning circles.

Make sure that deliveries of polluting materials are delivered directly to a safe storage area, and not left anywhere else on site; a safe storage area may need secondary containment depending on the material to be stored e.g. oil and hazardous chemicals.

Ensure that all material deliveries will be supervised, especially hazardous materials.

Define access routes to and from site to prevent nuisance.

Make arrangements to reduce mud leaving the site on delivery vehicles e.g. road sweeping or wheel wash facilities on entrance and exits from site, and plan to deal with any effluent.

Seek to reduce dust; consider a 10mph speed limit on site and damping down haul roads with fine mist spray, or placing hard standing on roads.

Prepare for deliveries; check any bunds, or drip trays for maintenance requirements, for instance emptying drip trays.

Prepare tool box talks to site workers on deliveries and preventing pollution.

Silty water

Poor management of silt and silty water is a major cause of serious pollution incidents from construction sites. Silt for these purposes is a fine inert sediment derived from soil and rocks. Silt pollution can:

- damage and kill aquatic life by smothering and suffocating

- reduce water quality
- cause flooding by blocking culverts and channels

Many construction processes produce silty water: movement and maintenance of plant and vehicles on site, rain water run-off from exposed ground, trenches or foundations and even from plant, wheel and boot wash facilities.

If possible, prevent water becoming contaminated with silt in the first place, as this reduces the risk of pollution and the overall cost of control measures. To avoid silt pollution, wherever possible use methods of work that reduce or eliminate the likelihood of producing silt and silty water. For example use of cut-off trenches, vegetation corridors adjacent to waterways (to act as 'buffer strips') and reduce the amount of exposed ground.

Identify where activities are likely to produce silt, e.g. earthworks, excavations.

Identify how silty water could travel on your site, i.e. pollution pathways, consider;

- drains
- watercourses
- lie of the land. How will water flow over or off the site due to slopes or topography?

Silty water must not be discharged to a drain or watercourse without prior treatment to settle or remove suspended solids. If it has been identified that silty water will be generated, identify suitable means to treat the water before discharge; examples include:

- lagoons
- settlement tanks
- silt traps
- grassy areas that slow water and allow solids to settle
- Sustainable Drainage Systems (SUDS).
- Plant, wheel and boot washing

Should be carried out in a designated area of hard standing at least 10 metres from any surface waters.

Run-off should be collected in a sump, with settled solids removed regularly and water recycled and reused where possible. Any excess water should be discharged to foul sewer with prior permission from the local sewerage provider or tankered off site for authorised disposal.

Silt treatment options can be complex or relatively simple depending on the volume of water, the amount and type of silt and the type and size of site. Whichever method is used, an area will be required where water can be undisturbed for a period of time. These facilities must be correctly installed, routinely maintained and inspected to ensure they're working efficiently.

Step 2 - Preparing for pollution prevention

Document site requirements. This may be a simple Environment Plan which records how the pollution risks identified will be managed.

Transfer each specific pollution prevention requirement defined for the site into a Method Statement for an activity.

Having identified the activities and risks, plan appropriate control measures. These may include: secondary containment, designated areas, procedures, screening, drainage, separation, silt traps, settlement lagoons.

Plan a regular inspection process. The frequency of the inspections will depend on the nature of the site, location, type of works, weather conditions and local environmental sensitivities. A basic check of receiving surface waters may need to be carried out at the start and end of the day for any visible signs of pollution.

Designate a 'responsible person(s)' to monitor high risk activities on site and who has sufficient authority to enable them to act to prevent an incident.

Plan how a pollution incident will be managed if one occurs. If there is fuel on site, a plan will be needed to respond to a spill – see Section 11.

Train staff how to deal with a spill in line with the response plan.

Depending on the size and nature of the site, other ways of reduce risks of causing pollution or nuisance may need to be considered. For example, specific refuelling areas, full time environmental support, mains electricity, a wheel wash to prevent mud being carried out onto the road.

If applying for a permit, or seeking permission from regulators, allow sufficient time. Obtaining authorisation takes time and can involve clarifying information provided with your request.

Make provision for separating clean and dirty water. Consider the land drains and watercourses bringing water into the site as 'clean' and water on site that becomes polluted due to work activities as 'dirty'. Aim to keep the two separate so that only the smallest volume of dirty water needs to be dealt with. One way of achieving this is by routing watercourses through temporary culverts across the site. This separates the clean water from the dirty site water. Any potential restriction to flow that may be intended or required, such as culverts, must be agreed with the EA.

Understand local weather conditions and patterns, such as average rainfall and wind direction and take these into account. For example when planning certain activities such as topsoil stripping - where will dust be blown and how can this be managed?

Step 3 – Site security

You must think about site security. Remember the 'polluter pays' principle – if someone gains access to your site and causes pollution, you could be responsible.

Ensure the site boundary is secure and access to site is controlled.

Ensure that polluting substances are securely locked away when not being used, e.g. fuel

Step 4 – Communication

Ensure that a responsible person acts as a point of contact to coordinate response to any incident, for example ordering an operator to move a stockpile away from a potential pollution pathway.

Arrange a meeting with local regulators to discuss the environmental risks identified, and the measures taken to limit these risks.

Communicate plans and actions to everyone working on site.

All people working on site should receive an induction that includes pollution risks and how to avoid them. Remember these aren't the same for every site, so the induction should be specific to the site. Use tool box talks to help reinforce the message. Ensure all people working on site know how and when to report a pollution incident.

Ensure that maintenance requirements of permanent control measures are communicated to the client before handover, so these continue to prevent pollution in future e.g. SUDS.

