

Allington Lane Solar Farm, Underground Cabling and Ancillary Works

Draft Construction Environmental
Management Plan (CEMP)

Eastleigh Borough Council.



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1. Introduction

Locogen Limited have been commissioned by Eastleigh Borough Council (the Applicant) to help consent a 25ha Solar Photovoltaic Farm and battery storage c35MWp DC on 7 fields of unused agricultural land off Allington Lane, Fair Oak, Eastleigh, Hampshire for a period of 35 years (the Development, Figure 1).

1.1. The Development

The layout and technical details of the Site are provided in the associated Planning, Design and Access Statement. The Site comprises a solar array (Figure 1), distributed across several fields.

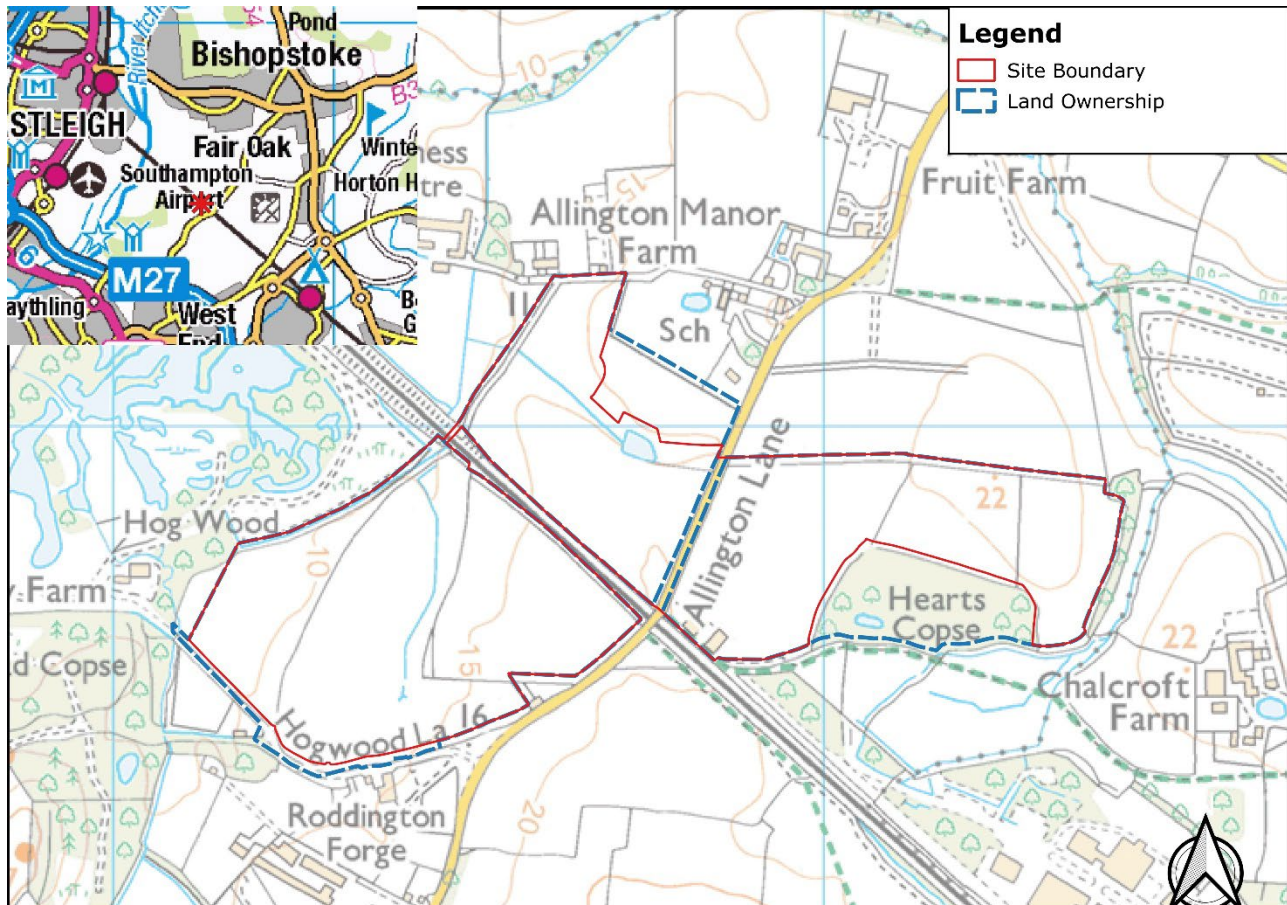


Figure 1: Site Location Plan

For the purpose of this document the Site is defined as any area where there will be a requirement for temporary or permanent works to facilitate the construction of the development. This includes areas required for access, temporary constructions and temporary storage areas.

Site information is detailed in Table 1 below.

Site Name	Allington Lane
Grid Reference	SU477167
Address	Allington Lane Fair Oak Eastleigh

	Hampshire SO50 7DD
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Table 1: Development Location Details

1.2. Planning Background and Methodology

This draft Construction Environmental Management Plan (CEMP) was requested as part of the response to the Pre-Application Enquiry (Application Reference: Q/23/94598, letter received April 2023) to address the following outlined points:

- Access and Construction: All likely construction impacts and confirm the construction period;
- Ecology: Addresses and mitigates potential construction impacts;
- Earthworks and Cabling: Details of the earthworks and cabling should be included in the site CEMP. Information where provided at this stage is outlined in this draft CEMP; and
- Site Management: A single combined site management plan, written in accordance with the points outlined in the pre-application letter may be appropriate in addition to the CEMP for the construction phase. Overlapping areas of interest are detailed in this draft CEMP.

This draft CEMP is designed to set out the responsibilities with regards to compliance with relevant legislation and guidance and to implement mitigation measures likely to be required as part of any future consent. The draft CEMP forms a project-specific framework and has been developed to avoid, minimise and mitigate potential effects of the construction process on the environment and surrounding community. A full list of relevant guidance and legislation will be outlined in the final production of the CEMP.

2. Site Management

A single combined site management plan, written in accordance with the points outlined in the pre-application letter may be appropriate. Overarching Site Management points are set out below.

2.1. Roles & Responsibilities

The Project Manager (PM) role and Principal Contractor (PC) roles shall be outlined in the detailed CEMP post-determination. The Client is Eastleigh Borough Council.

A notice displaying emergency contact details will be displayed in a prominent location within the site accommodation / office, including emergency spill response team details.

The details of at least two lead members of staff with responsibility for emergency pollution response will be included in this section, as well as the details of any appropriate bodies, organisations or assigned Clerks of Works.

Defined 'near misses' including health and safety and environmental will be reported and logged by The PC.

This section will be populated with contact telephone numbers for organisations to be contacted following a pollution incident (contact details are specifically excluded to ensure that the final version of the CEMP includes the most up to date details).

The details of the persons and bodies responsible for activities associated with the CEMP and emergency contact details shall be detailed in the full CEMP post-determination.

2.2. Public Liaison, General Enquiries and Complaints

In-line with best practice at the time of writing, the following approach to communication will be adopted.

The Principal Contractor will have in place a plan covering community liaison, enquiries and complaints. Measures that will be adopted by the Principal Contractor as part of the construction of the Works include:

- The Site Manager will establish a system for dealing with enquiries or complaints from the public, local authorities or statutory consultees;
- Displaying an information board containing contact names, telephone numbers and addresses, and the helpline number at appropriate locations on the boundaries of the Site will be in place to inform the local community;
- Any complaints that may arise will be logged, reported and addressed. The system will include measures to keep all relevant parties informed about the progress of complaints.

During construction, any external enquiries or complaints relating to an environmental and consents matter shall be reported to the to be defined appropriate construction officers or official bodies.

The appropriate officer or body will then work with the on-site team to investigate, address and respond to the complaint accordingly. Environmental complaints will be recorded on the Principal Contractor's HSE system in accordance with HSE management procedures.

Records of complaints shall be regularly monitored by the Principal Contractor and Client to check that an appropriate and timely response has been made, and to identify emergent trends which may require further investigation.

3. Access

A full Construction Traffic Management Plan (CTMP) will be produced and referred to in the final production of the CEMP.

At this stage there are four points of vehicular access indicated off Allington Lane and Hogwood Lane.. Advice will be sought through Hampshire County Council Highways Team with the concluding access points detailed in the final production of the CEMP.  Figure 5 in Section 2.4 of the Planning Design and Access Statement (PDAS) outlines the current access to site.

The confirmed access points will be used as Site Entrance locations. Around 1,200km of access track is required to be maintained for the duration of the project. It will be constructed to be permeable with compressed stone base and gravel as shown in drawing.

The responsibility for the Site access will be with The Principal Contractor and the construction compound will be located away from sensitive receptors

Outline measures for access and mitigation of impact upon the environment at this stage consists of the following:

- Fuel Delivery vehicles will only be allowed access to site as far as the construction compounds. Fuel spill kits will be kept at regular and clearly accessible locations;
- Vehicle movements to be minimised on site, with timed deliveries to ensure no backlog of vehicles will be present;
- Provision of vehicle-appropriate parking will be located at the construction compound
- Pedestrian access routes will be clearly signposted with use of trained banking-staff and defined hand signals to ensure safety of pedestrian routes and vehicular access;
- If track matting is required this will be deployed where heavy loads must cross to prevent rutting or damage to ecological and geological receptors; and
- Signs to switch off engines when waiting will be deployed to ensure against noise and exhaust pollution when waiting to drop off/ leave site.

4. Construction Impacts

Construction on the Site will consist of the creation and build of:

- Access tracks;
- Battery Energy Storage Solutions;
- Construction Compounds;
- Cabling;
- Security Fencing; and
- Solar PV Arrays and Inverters;

Details of these elements are outlined in the PDAS and where necessary specific Management Plans will be created for Local Planning Authority approval pre-development.

4.1. Mitigation of construction impacts

Full details and site-specific information to be provided upon production of the final CEMP.

- 'Core' Working Hours to be agreed but will be undertaken between daylight hours Monday – Saturday to reduce the potential for disturbance to local residents and active users of the surrounding environment;
- Contractor use of the Site will be outlined in pre-site meetings, toolbox talks given where necessary and the appropriate holding of task-specific qualification cards. Assigned first aiders will be named on site with accessible use of first aid and fire safety equipment;
- Where further documentation, such as the CTMP or a Landscape Environmental Management Plan outline actions to be undertaken on the construction site these will be adhered to alongside the final production of the CEMP;
- Health and safety will be managed on site according to guidance from HSE and British Standards;
- Load and Drop heights will be set out and minimised;
- If necessary acoustic measures which as barriers and wraps will be utilised;
- If necessary visual screens will be used to screen construction activities; and
- Dust suppression tools will be utilised in accordance with HSE and British Standards;

4.2. Reporting Protocol

All accidents, incidents and near misses (including spills, dust, noise pollution etc) will be reported to the Site Manager immediately, these will be recorded and investigated by the Site Manager and reports will include:

- Details which will be recorded on the report will include:
- A description of the incident;
- Contributory causes;
- Adverse effects;
- Measures implemented to mitigate adverse effects; and
- Effectiveness of measures implemented to prevent pollution incidents

If an environmental incident occurs, the following protocol (or similar) will be adopted:

- The appropriate notification protocols shall be implemented immediately following a planning or environmental spillage or incident, followed by immediate notification of the Site Manager. Should a serious environmental incident occur, the Environment Agency should also be notified;
- The Site Manager will investigate the incident, with inputs from specialist advice as to appropriate measures to remedy or mitigate any potential pollution arising from the incident;
- Assuming the issue arose from the failure of a control system, the issue shall be rectified at the earliest opportunity;

- The response action shall be recorded on the Environmental Complaints/ Spills/ Incidents Report by the Site Manager or ECoW (to be defined in detailed CEMP);
- A log of all environmental spills/ incidents and follow-up actions should be kept and made available for inspection; and
- All complaints received from the public or other interested parties as a result of the installation works must be recorded on the Environmental Complaints/ Spills/ Incident Form.

4.3. Outline Pollution Incident Response Plan

An Incident Response Plan will be implemented throughout the construction and operation of the Development.

Prior to the commencement of construction, the Principal Contractor shall set up an emergency response plan/ procedure, in order to ensure that this plan is adequate for the nature and lifetime of the project and the environment in which works are being undertaken.

The Incident Response Plan will include emergency contacts who will coordinate response activities in the event of a pollution incident using the following points:

- Make the situation safe: Do not compromise the health and safety of site personnel in controlling a pollution incident;
- Ensure that appropriate Personal Protective Equipment (PPE) is available to use where necessary;
- Stop the source of the pollution incident: Identify the cause of the emergency or incident and act immediately to prevent further pollution;
- Contain the pollution incident: Once the source of the pollution has been stopped, act to prevent the pollution that has already taken place from spreading;
- Ensure that appropriate materials are available in appropriate quantities to use where necessary. For example, absorbent materials and booms to soak up the pollution are required to deal with spillages of liquid contaminants. For example, an excavator may be used to dig containment facilities or bunds where containing large volumes of pollutants;
- Notify the pollution incident: Any emergency or incident will be reported as soon as possible after the above initial control measures have been implemented detailing the nature, cause and location to ensure that appropriate action is taken. Where appropriate, the site team should refer the incident to a specialist clean up Contractor;
- Where pollution is serious, or containment has failed, it may be necessary to contact the Local Authority, the Environment Agency and/or Natural England as relevant to the incident;
- Monitor the pollution incident: Once the pollutants are contained, the site of the pollution should be monitored on an ongoing basis until the pollutants and contaminated materials are successfully removed and if necessary, further action taken to contain the pollutants;
- Where it is possible that pollution has spread, the surrounding water bodies and watercourses should be inspected and monitored on an ongoing basis to identify the extents of the pollution. In the event of pollution due to sedimentation of watercourses, those watercourses should be checked during periods of high rainfall or during construction activities with the potential for significant run-off;
- Clean up the pollution incident: Once the pollution incident has been stopped, contained and the full extents defined, a strategy for cleaning up should be developed;
- All waste generated by clean-up activities should be disposed of in accordance with current legislative requirements and the site waste management plan and copies of all transfer notes retained; and
- Learn from the pollution incident: Ensure that any lessons from the incident are communicated to all relevant staff and appropriate action taken elsewhere on site if necessary. Update all relevant Method Statements and Toolbox Talks, and ensure new information is communicated to site staff

4.4. Outline Waste Management Plan

The aim of this outline Waste Management Plan (oWMP) is to protect the environment through implementation of effective management plans which relate to the management of waste throughout the life cycle of the Development.

Prior to construction of the Development, the Principal Contractor will update this oWMP to ensure it is a suitably detailed document and take ownership and will adhere to the principles presented within it.

This oWMP provides guidelines and details of the minimum requirements which the Contractor shall include in their detailed CEMP to be put in place by the appointed Contractor prior to commencement of the construction phase of the Development.

It is anticipated that all excavated materials will be utilised on-site as part of the permanent works and site restoration process resulting in no waste arising from these elements of the Development.

Any import, export (not anticipated) and reuse of material generated onsite will be undertaken in line with the requirements of Industry Standards and Guidance. As such, this oWMP considers only the management of the waste arising from other imported construction materials.

The core waste management principles of reduce, reuse, recycle, recover and disposal are embedded here:

- Waste Prevention. Minimisation of waste generation is achieved through careful design and creating a 'waste aware' culture on-site. All reasonable actions will be taken by the Contractor to avoid the production of and/ or minimise the volume of waste produced as a result of the Development. This can be through reducing consumption, using resources efficiently, and designing for longevity;
- Waste Separation for Reuse and Recycle. Where possible, the separation of waste will be carried out at the source in order to maximise opportunities for reuse and recycling. Segregation of waste will require training, monitoring and enforcement;
- Waste Storage, Disposal and Transportation. All areas used for temporary storage of waste on-site will comply with The Department for Environment, Food & Rural Affairs (Defra) and Environment Agency (EA) guidelines and will be clearly signed. Waste storage facilities will be provided at source using the best environmental options available. Any hazardous or special waste will be stored in separate, secure containers and clearly identified as such. Disposal activities will be carried out in accordance with local and national standards and guidance to ensure compliance and good practice;
- Waste transportation. This will take place at regular intervals to avoid the accrual of waste;
- Where possible, delivery vehicles will aim to remove waste materials on return trips. Only registered waste carriers will be authorised to transport waste and a Waste Transfer Note (WTN) will be completed for each load of waste, which must contain a record of their waste carrier registration number. Copies of each WTN will be filed as an appendix and held for at least two years;
- All sites receiving waste must have an appropriate permit, licence or registration exemption, the details of which should also be recorded. If required, the EA will be advised in advance of any hazardous waste movements and Waste Consignment Notes (WCNs) will be purchased in advance for this type of waste transportation. These consignment notes will be held for at least three years;
- Waste from Welfare Facilities. Temporary welfare facilities will be provided during the construction phase. These facilities will include toilets, washing and drinking water. This could include a connection to the public mains water supply, and a cess tank that would be periodically emptied and taken off-site by a licensed operator. All on-site welfare facilities will be clearly signposted and maintained;
- A vehicle washing facility or designated jet-wash water bowser will be in the construction compound or other designated area, if necessary. The sump water will either be pumped

to a licenced carrier and disposed of offsite or discharged to vegetated surfaces if the water quality meets Environment Agency (EA) requirements;

- Waste Chemicals, Fuels and Oils. All fuel and oil will be stored within designated area and contained by a small bund constructed from material sourced on site and lined with an impermeable membrane in order to prevent any contamination of the surrounding soils, vegetation and water table. Any contaminated run-off within the bund will be disposed of at an appropriate waste management facility;
- Any used (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with the COSHH Regulations and amended workplace limits for exposure to COSHH materials and in accordance with the spill management plan; and
- Waste Metals. It is likely that this will be produced from excess steel (e.g., from the solar panel mounting structures or cuttings from underground cabling). Any waste metal would be recycled as appropriate.

5. Impacts upon Ecology

Guidance and enhancement measures outlined in the PDAS and the accompanying Environmental and Ecological documents will be adhered to and outlined in detail in the final production of the CEMP.

In the first instance mitigation consisting of appropriate buffer zones around the River Itchen Site of Special Scientific Interest (SAC/ SSSI), Site of Importance for Nature Conservation (SINC) and Local Nature Reserve (LNR) will be implemented with no development within these boundaries.

Full site specific details, are to be defined in the final production of the CEMP alongside appropriate Local Authority Guidance and results of Ecological Assessments and any other specified supporting Environmental (LEMP) and Ecological documentation.

Outline mitigation measures are proposed below to ensure best practice construction methods to be employed across site and ensure habitats, vegetative, arboricultural and species specific assemblages will not be adversely affected through construction activities:

- Construction works will maintain a, to be defined, minimum distance from hedgerows and scattered trees;
- Construction works will maintain a minimum defined distance from woodlands;
- Control of dust and manage the effects of soiling on sensitive receptors;
- Control of artificial lighting to minimise the potential for negative effects on nocturnal species including bat and badger;
- Vegetation stubble to be kept at no more than 15cm to discourage ground nesting bird species;
- Site operatives to be briefed on current legislation for species;
- Vegetation clearance will be avoided where possible during peak bird nesting season
- Small scale clearance will be subject to nesting bird checks;
- Implementation of appropriate buffer zones if nesting birds are found to be present on site; and
- Species specific (including flora, fauna, birds, reptile and aquatic) enhancement measures will be undertaken as part of the construction and/or onsite remediation works. These could include the provision of habitat and nesting boxes, creation of habitat and native species introduction. These measures will be undertaken in accordance with a LEMP guidance.

6. Earthworks and Cabling

The solar arrays shall be connected via a buried internal cabling networks that will eventually connect to the substation and BESS complex in the south of the site. The cable would typically be buried to DNO standard so the trench would likely be 60cm wide and 1m depth with the HV cable(s) at c.80cm depth. The detailed cable route will be determined and confirmed as part of the pre-construction process but will be designed to avoid sensitive receptors and watercourse buffers.

Underground electrical cabling linking all of the invertors will be installed. The method of installation would be selected to have minimum disturbance to the superficial geology at the time of installation and afterwards. The following methods would be used where appropriate:

- Burial in ducts across the tracks;
- Fitted in ducts along culverts;
- Burial in trenches; and
- Ploughing.

7. Decommissioning, Restoration & Aftercare Plan

Ground works associated with the decommissioning will be undertaken by an appointed Principal Contractor at the time of decommissioning work and shall be in accordance with all documentation and pre-works surveys prescribed by the appointed environmental consultants and as agreed with the Council and appropriate consultees.

The decommissioning of the Development is not expected to pose significant risks to the environment, nevertheless risks need to be addressed in order to ensure that no, or minimal, impact on the environment occurs. It is expected that the environmental protection and mitigation measures, to be specified within the Construction Environmental Management Plan (CEMP) prepared prior to construction (which will be an updated version of the draft CEMP), will also apply to decommissioning.

Decommissioning will be undertaken at the end of the operational life of the Development unless otherwise stated. As technology develops and experience of solar farm decommissioning grows, best practice will evolve. Eastleigh Borough Council will be updated with a Decommissioning Environment Management Plan (DEMP) appendix, containing the latest methods and best practice, in agreement with statutory consultees, at least 3 years prior to decommissioning.

The reinstatement of any areas disturbed during the decommissioning works will be undertaken by the Principal Contractor. It is expected that reinstatement requirements would be specified within the final DRP and DEMP prepared as part of the civil works contract for the decommissioning works.