Appendix 2.1
Letter from EPA regarding Integrated Pollution Control License (P0028-01)

Office of
Environmental
Enforcement

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The Secretary
Belvelly Marino Development Company
DAC
C/O Port of Cork
Customs House
Cork

21 October 2019

Our Ref. P0028-01/gc31

Re Integrated Pollution Control Licence Reg. No. P0028-01

Dear Sir / Madam,

The Agency wishes to give notice in relation to Integrated Pollution Control Licence Reg. No. P0028-01, which was issued to Irish Fertiliser Industries, Marino Point, Cobh, County Cork, on 20 December 1996 for the scheduled activity: the manufacture of artificial fertilisers and the manufacture of inorganic chemicals.

In accordance with Section 92(3) of the Environmental Protection Agency Act 1992, as amended [extract attached], IPC licence P0028-01 has ceased to have effect, as more than three years have passed since the cessation of the activity on 08 November 2002.

Having carried out an Exit Audit of the site and documentation associated with the IPC licence to verify the findings of the Independent Closure Audit Report, the Agency is satisfied that the remediation of the site has been completed to the required standard. The EPA is further satisfied, based on an industrial zoning landuse, that the site of the activity is in a satisfactory state, and that no further action is required in relation to IPPC Licence Reg. No. P0028-01.

Yours faithfully

Peter Cunningham

Peter Cunningham
Office of Environmental Enforcement

Appendix 2.2
Preliminary Construction and Environmental Management Plan (CEMP)

Malachy Walsh and Partners
Engineering and Environmental Consultants

Development of Goulding Agricultural Fertiliser Facility and Additional Port Operational Use to Facilitate Cargo Vessels

Belvelly Port Facility, Marino Point, Co. Cork

Preliminary Construction and Environmental Management Plan (CEMP)

www.mwp.ie

ISSUE FORM	
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Document title	Preliminary Construction and Environmental Management Plan
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Document prepared by	Fergus Doyle (MWP)
Document checked by	O Holmes (MWP)

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1. INTRODUCTION

Goulding Chemicals Limited and Belvelly Marino Development Company DAC (BMDC) wish to jointly submit a planning application to Cork County Council for the development of a new agricultural fertiliser facility and additional port operational use of the jetty at the Belvelly Port Facility at Marino Point on Great Island, Co. Cork.

This preliminary Construction Environmental Management Plan (CEMP) has been prepared by Malachy Walsh and Partners to address the proposed works for which planning consent is being sought.

1.1 CEMP Purpose and Objectives

The purpose of this CEMP is to outline the environmental management framework that will be adhered to during the construction works. The CEMP describes the proposed works and identifies the environmental considerations associated with these activities. Furthermore, the CEMP outlines proposed work practices, management, mitigation and monitoring strategies to ensure that contractual, regulatory, and statutory environmental requirements, mitigation measures and planning conditions are satisfied. The CEMP will provide the client and the main contractor with a practical guide to ensure environmental and planning compliance by all parties.

This CEMP is an outline document which will be updated should the project be granted consent to proceed. At that point, the CEMP will be updated to include more site-specific information once the Construction Management Team is appointed and will include any additional requirements set out in planning conditions.

All site personnel will be required to familiarise themselves with the plan's requirements. There will be a requirement on the appointed contractor that details are updated with progress, including the roles and responsibilities of those appointed on the site for the construction of the project.

2. PROJECT OVERVIEW

2.1 Summary of Proposed Works

The proposed development at the Belvelly Port Facility will consist of the following main elements:

- The construction and operation of an agricultural fertiliser blending and bagging facility which facilitates the relocation of Goulding Chemicals Limited from Cork City to the Belvelly Port Facility. The proposed facility will consist of:
  - a storage warehouse;
  - a bagging and palletising facility;
  - an office building to support customer service and weighbridge operations;
  - external storage bays with associated circulation space, weigh-bridges, access control and security facilities; and
  - importation of raw materials at the existing jetty.

The primary use of the proposed fertiliser facility will be for bagging and blending of dry bulk materials for storage and distribution. All finished fertiliser product will be distributed from the facility by road.

- Additional BMDC port operational use of the jetty to facilitate general dry cargo vessels at the Belvelly Port Facility.

2.2 Proposed Programme duration

The overall construction works programme is estimated at between 12 to 18 months. This includes an estimated four months overlap with the proposed demolition, site infrastructure and utility upgrade works due to take place across the site (Planning Ref. 19/06783). It is envisaged that the work will commence in October 2021 and will be fully complete by December 2022, subject to the necessary statutory approvals.

2.3 Staffing and Working Hours

There will be a maximum of approximately 40 construction staff working on the site. Site personnel will travel to site prior to 8.00 a.m. and depart from site from 6.00 p.m. The proposed hours for the movement of HGVs on and off the site are 9.00 a.m. to 4.00 p.m., Monday to Friday, and 8.00 a.m. to 5.00 p.m. on Saturdays. These hours are proposed to avoid coinciding with the existing weekday morning and evening peak traffic periods on the R624 and surrounding road network.

A detailed Construction Traffic Management Plan will be prepared by the main contractor prior to works commencing. The Construction Traffic Management Plan will also include any specific requirements of Cork County Council during the construction phase including any monitoring and reporting requirements. This Plan will be submitted to and agreed with Cork County Council prior to construction commencement.

The following sections outline the best practice measures to be implemented during the construction phase of the proposed project.

2.4 Methodology

Having regard to the scope of the site works and processes, the individual construction components for the agricultural fertiliser facility are outlined below:

- Site mobilisation;
- Earthworks and excavations for services and foundations;
- Building construction primarily using steel and concrete. Foundations will be piled.
- Provision of facility services including water supply, surface water drainage and foul collection and connection to the proposed Belvelly Port Facility WWTP, and electrical connection to the proposed 10kV supply; and,
- Associated site works.

There are no construction works associated with the additional port use of the jetty.

2.4.1 Temporary Construction Compound

A temporary construction compound will be established within the footprint of the Gouldings facility and will be appropriately secured. The construction compound will accommodate all personnel and include portacabins for site offices, WC and welfare facilities, storage containers and material lay down areas. The compound will facilitate staff and visitor parking and it will be removed upon completion of the works.

3. MANAGEMENT AND RESPONSIBILITIES

3.1 Organisational Structure

A sample Organisational Structure for the Contractor's Project Team is included below (**Figure 1)**. This structure will be defined by the Contractor and will include the names of the assigned personnel with the appropriate responsibility and reporting structure reflected.

The appointed Contractor will be required to finalise the Organisational Structure for the project to oversee this CEMP and to outline the specific responsibilities for the roles required.

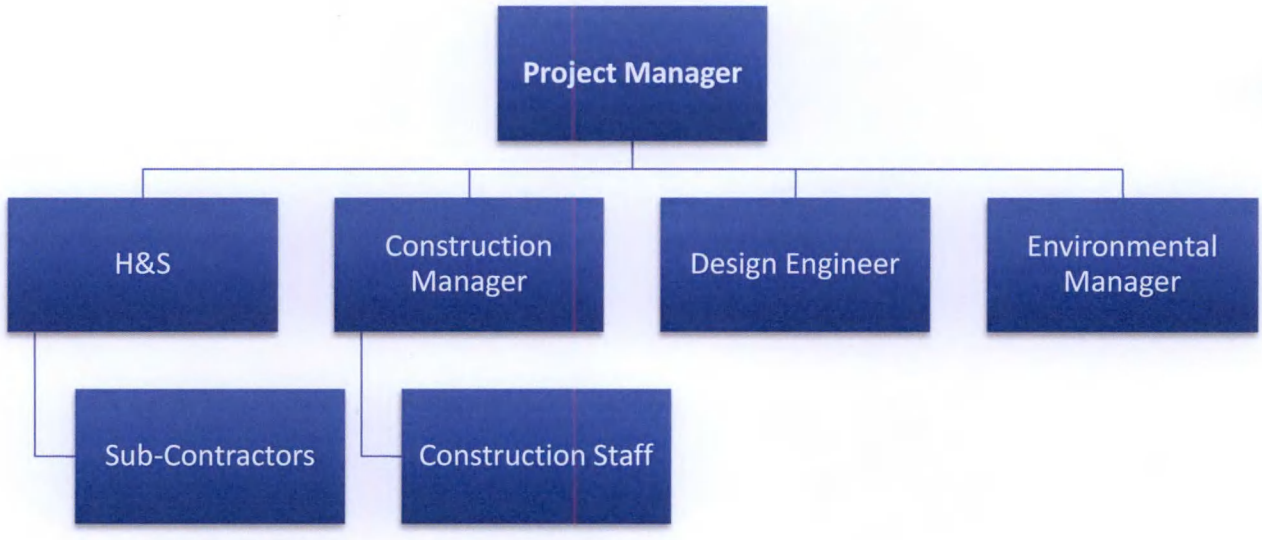

Figure 1 Sample Organisation Structure

1.1 Responsibilities

The general role of key people on site implementing the CEMP will be:

- The Project Manager - liaises with the Project Team in assigning duties and responsibilities in relation to the CEMP to individual members of the main contractor's project team.
- The Construction Manager - liaises with the Environmental Manager when preparing site works where there is a risk of environmental damage and manages the construction personnel and general works.

- The Design Engineer - undertakes and certifies the Design and supervises the standard of works, including geotechnical aspects (Geotechnical engineer may need to be consulted).
- The Environmental Manager - ensures that the CEMP is developed, implemented and maintained.

Other roles may be outlined as follows:

- Health and Safety (report to the project manager)
- Project Archaeologist (report to the Environmental Manager)
- Project Ecologist (report to the Environmental Manager)
- Geotechnical Engineer (as required by Design Engineer)

The roles and responsibilities outlined above are indicative and will be updated on the appointment of the main contractor (Contractor). Details of the personnel and their responsibilities must be added to the CEMP. An outline of potential roles is provided in **Appendix 1** but will require revision.

4. ENVIRONMENTAL COMMITMENTS AND BEST PRACTICE MEASURES

The Environmental Commitments and Best Practices Measures to be implemented during the construction phase are outlined in the following sections.

Once appointed, it will be the Contractor's responsibility to update and add (where required) project specific control measures relevant to the environmental management plans and procedures. The Contractor will ensure that plans/procedures are developed and communicated to all site staff, including sub-contractors, through induction, training and at relevant meetings.

The following is an outline of the typical environmental management procedures and details are outlined in the sections to follow.

Ref:	Procedure:-
EMP-1	Waste Management
EMP-2	Fuel and Oil Management
EMP-3	Concrete Management
EMP-4	Dust Suppression
EMP-5	Emissions and Odours
EMP-6	Noise and Vibration
EMP-7	Invasive Species
EMP-8	Surface Water Management
EMP-9	Site Environmental Training and Awareness
EMP-10	Environmental Emergency Response
EMP-11	Monitoring and Auditing Procedure
EMP-12	Environmental Accidents, Incidents and Corrective Actions Procedure
EMP-13	Environmental Complaints Procedure

4.1 Waste Management

The waste management goal for the project is to manage all waste in accordance with the relevant statutory provisions and the waste hierarchy. The waste management strategy for the project will follow the accepted waste hierarchy. See **Figure 2,** below.

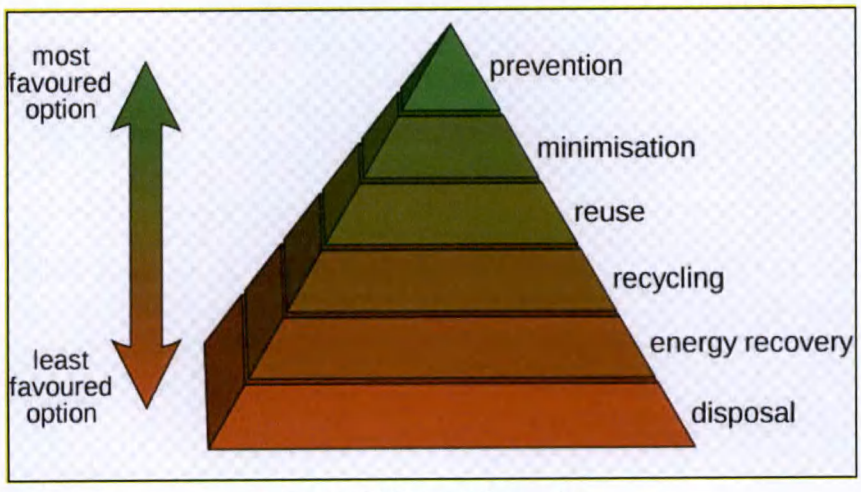

Figure 2 Waste Hierarchy

Waste generated during the **Construction phase** will include surplus excavated material, wrapping from materials, oils, filters & cleaning materials, food waste, packaging materials, dry recyclables and wash out from trucks.

All wastes will be segregated and removed off-site to an appropriately licensed waste or recycling facility. Wash out from trucks will also be disposed of off-site at an approved location.

Any necessary permits or licences required will be sought from Cork County Council or the Environmental Protection Agency (EPA) for the recovery/disposal of waste as necessary.

General Waste Measures to be employed

- Access to materials will be controlled. A dedicated storage area will be provided in the immediate site area for building materials such as cables, geotexile matting, blocks, tools and equipment, fence posts and wire, booms, pipes etc.;
- Access to stored materials will be restricted; the site compound will be securely fenced from the outset and will be locked when there are no site personnel present;
- To contain and manage construction phase waste, multiple skips will be provided at the storage compound; one for recyclable waste and others for various construction wastes. These skips will be emptied when required by a licensed waste management company. Waste oil and waste oil drums will be collected and stored in containers and on a bunded tray within the storage container; and
- The Contractor shall consider the potential to re-use existing materials on site in so far as is possible.

Responsibility

The Environmental Manager will be responsible for creating and updating the Waste Management Plan. They will also identify a waste contractor to remove waste that can be recycled or re-used.

The Environmental Manager should keep records provided by waste contractors of all waste being removed from the site. The Environmental Manager should record waste removed from the site regularly. This information should be recorded in a standard format.

It will be the construction manager's responsibility to organise the removal of skips from their area when they are full.

Regard should be had for the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction Projects (DoEHLG, July 2006) in preparing and maintaining this plan.

4.2 Fuel Management Measures

Fuel Management Measures that will be employed during the Construction phase include:

- The potential for hydrocarbons getting into the existing drains and local watercourses will be mitigated by only refuelling construction machinery and vehicles in designated refuelling areas using a prescribed re-fuelling procedure;
- Refuelling will be carried out using 110% capacity double bunded mobile bowsers. The refuelling bowser will be operated by trained personnel. The bowser will have spill containment equipment which the operators will be fully trained in using;
- To reduce the potential for oil leaks, only mechanically sound vehicles and machinery will be allowed onto the site. An up to date service record will be required from the main contractor;
- Plant nappies or absorbent mats to be placed under refuelling point during all refuelling to absorb drips;
- Mobile bowsers, tanks and drums should be stored in secure, impermeable storage area, away from drains and open water;
- Collision with oil stores will be prevented by locating oils within a steel container in a designated area of the site compound away from vehicle movements;
- Potential leaks from delivery vehicles will be reduced by visually inspecting all delivery vehicles for major leaks. Contractors supplying concrete and crushed stone to the site will be contractually required to supply their products using roadworthy vehicles;
- Should there be an oil leak or spill, the leak or spill will be contained immediately using oil spill kits; any nearby drain outlets will be blocked with an oil absorbent boom until the fuel/oil spill has been cleaned up and all oil and any contaminated material removed from the area. This contaminated material will be properly disposed of in a licensed facility;

- The Environmental Manager will be immediately informed of the oil leak/spill, and will assess the cause and the management of the clean-up of the leak or spill. They will inspect nearby drains for the presence of oil, and initiate the clean-up if necessary;
- Immediate action will be facilitated by easy access to oil spill kits. An oil spill kit that includes absorbing pads and socks will be kept at the site compound and also in site vehicles and machinery;
- Correct action in the event of a leak or spill will be facilitated by training all vehicle/machinery operators in the use of the spill kits and the correct containment and cleaning up of oil spills or leaks. This training will be provided by the Environmental Manager at site induction;
- In the event of a major oil spill, a company who provide a rapid response emergency service for major fuel spills will be immediately called for assistance, their contact details will be kept in the site office and in the spill kits kept in site vehicles and machinery; and
- Long term storage of waste oils will not be allowed on site. These waste oils will be collected in leak-proof containers and removed from the site for disposal or re-cycling by an approved service provider.

Responsibilities

The Construction Manager and Environmental Manager are responsible for ensuring Fuel and Oils are managed in line with this procedure. The Appointed Contractor, in updating the CEMP, must designate personnel to the tasks relating to Fuels and Oil, as outlined below.

4.3 Concrete Management

To reduce the potential for cementitious material entering surface waters, concrete pours will be supervised by the Construction Manager, a suitably qualified Engineer and the Environmental Manager.

Management Measures will include the following:

- The construction manager will ensure that the area of the pour is completely drained of water before a pour commences;
- Pours will not take place during forecasted heavy rainfall;
- Incidental rainfall from light showers during the period of a pour is typically absorbed into the concrete matrix but heavier showers can result in some run off from the top surface of the concrete pour. If run-off is encountered the Environmental Manager will block the outflow from the drains to retain or treat the run-off until the pH is neutral before discharge to the drainage network;
- In the event of a spillage on site, the Environmental Manager will temporarily block the dirty water drains in the immediate area and monitor the pH levels of the water in the associated settlement ponds and if necessary will adjust the pH levels using CO^2

entrainment. Any spillage will be cleared immediately and deposited in the Chute wash down area;

- To reduce the volume of cementitious water, washout of concrete trucks will not take place on site. Concrete trucks will be washed out off site at the source quarry. Only Concrete truck chutes will be allowed to be cleaned on site at a central concrete wash out area.

Responsibility

The Project Manager, the Construction Manager and the Environmental Manager will supervise all concrete pours.

The Environmental Manager is responsible for ensuring that appropriate water pollution prevention measures are put in place and that water sampling is carried out. Where standards are breached he/she should carry out an investigation and in conjunction with the Construction Manager, he/she should ensure remedial action is taken and further samples taken to verify that the situation has returned to normal. The Environmental Manager will also be responsible for ensuring spill kits are readily available in vulnerable locations and that booms for watercourses are long enough and have adequate anchorage.

4.4 Dust Suppression

A dust minimisation plan will be formulated for the construction phase of the project, as construction activities are likely to generate some dust emissions. The potential for dust to be emitted depends on the type of construction activity being carried out in conjunction with environmental factors including levels of rainfall, wind speeds and wind direction. The potential for impact from dust depends on the distance to potentially sensitive locations and whether the wind can carry the dust to these locations. The majority of any dust produced will be deposited close to the potential source and any impacts from dust deposition will typically be within several hundred metres of the construction area.

The dust minimisation plan will be reviewed at regular intervals during the construction phase to ensure the effectiveness of the procedures in place and to maintain the goal of minimisation of dust through the use of best practice and procedures.

Dust and fine particulate matter (PM_{10}) arising during the construction phase will be reduced and controlled via the following measures:

- Maximum vehicle speeds shall be controlled to 15 km/h within the construction site areas to prevent high levels of dust being re-suspended from the internal road surfaces;
- Exposed surfaces and entrances to the site should be dampened during dry windy conditions in the interest of controlling fugitive dust;
- Dampening of exposed earthwork activities and site haul roads during dry weather;
- Protective hoarding screens shall be erected around construction activities to reduce dust-blow from the site;

- Ensure there is access to a water source in close proximity to each area on site where dust is deemed most likely to occur;
- A temporary wheel-wash will be installed near the site entrance. All vehicles departing the site will pass through his wheel-wash before entering onto the public road to ensure silt, mud and other materials are not moved onto the local road surface;
- Vehicles that transport materials to and from the site will be fitted with covers to prevent material loss;
- Periodic maintenance of the public road surface near the entrance will be undertaken. This will include the removal of any spillages so as to prevent the dispersion of dust along the road, which is likely to be re-suspended by passing vehicles. A mechanical vacuum road sweeper will be used if necessary;
- Any spillage of material from vehicles departing the site will be removed to prevent re-suspension of silt from the road surface by passing vehicles;
- Dust control measures will be active on equipment used for drilling or pavement cutting, grinding of block surfaces and similar types of stone finishing is taking place as significant fine particulate emissions can be generated which may cause a local nuisance;
- Loose, fine aggregates and other similar sized building materials that can be easily re-suspended by the wind will be stored in sheltered stockpiles in designated areas of the site;
- Stockpiles will be located away from drainage systems and soil retaining measures (silt fence/ silt curtain or other suitable materials) to reduce risk of silk run-off;
- Vehicles and plant machinery operating on-site will be properly maintained to prevent excessive emissions of particulates and other pollutants from the exhaust pipes.

Responsibility

The Environmental Manager is responsible for developing and reviewing the site Dust Minimisation Plan. The Construction Manager is responsible for organising dust suppression through use of bowsers and cleaners.

4.5 Emissions and Odours

Any works that have the potential to emit odours will be planned appropriately so as to minimise any effect. Any processes that emit fumes, odours or smoke will comply with manufacturer's and if appropriate regulatory limits to prevent nuisance or a regulatory breach. All plant machinery and vehicles will comply with European Union (EU) emission limits for their vehicle class as a minimum and will be regularly maintained. A programme of maintenance checks will be developed for plant on site and adhered to. Any plant and equipment emitting black smoke will be taken out of service immediately and the defect rectified. Plant will be located a maximum distance from sensitive receptors.

4.6 Noise and Vibration

There will be no significant noise or vibration impacts associated with the development. However, the applicant proposes to apply the following measures in order to further reduce offsite impacts:

- Onsite haul routes used by trucks will be maintained in good condition and free of potholes in order to avoid banging of empty truck bodies;
- Project specifications given to the appointed contractor(s) will include a provision that all plant and exhaust silencers will be maintained in a satisfactory condition at all times;
- Where it becomes necessary to introduce potentially noisy plant or processes which have not been assessed in this EIAR, noise impacts associated with same will be evaluated in advance;
- Any requirement to undertake concrete breaking outside of daytime hours will be assessed in advance.
- Operations which may give rise to potentially elevated levels of noise and/or groundborne vibration will be confined to limited daytime hours.
- All plant and machinery used onsite will be maintained in accordance with manufacturer specifications.
- Construction phase operations will apply guidance and recommendations included in *British Standard BS 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Parts 1 & 2* (2014) in order to minimise emissions where possible.
- A site liaison officer will be appointed to establishing channels of communication between the contractor/developer, the local authority and residents.
- A complaints procedure will be established for the duration of the construction phase. Any complaints received regarding alleged noise and/or groundborne vibration will be investigated immediately. Details of the complainant, the complaint (time of occurrence and nature of noise/vibration) and follow up action will be logged in the complaints record.

4.7 Biodiversity Protection

4.7.1 Project Ecologist

A suitable qualified project ecologist will be employed for the duration of the construction works to ensure that mitigation measures and relevant ecological planning conditions are implemented in full. The project ecologist will also have a role in reviewing and approving all work method statements. The project ecologist will have the authority to stop works should an unforeseen issue arise.

4.7.2 Habitats

To prevent incidental damage by machinery or by the deposition of spoil during the site clearance stage, any habitats earmarked for retention will be securely fenced early in the construction phase. The fencing will be clearly visible to machine operators.

Any habitats earmarked for retention that are damaged and disturbed will be left to regenerate naturally or will be rehabilitated and landscaped, as appropriate, once construction is complete. Disturbed areas will be seeded or planted using appropriate native grass or species native to the areas where necessary.

4.7.3 Birds

4.7.3.1 *Vegetation Removal*

All vegetation removal required to accommodate the works will be done outside of the bird breeding period, March to August, inclusive.

4.7.3.2 *Wintering Birds and Bird Protection during breeding season*

Standard construction site screening will be erected local to construction works, which will minimise visual stimuli and subsequent visual disturbance to birds of SCI roosting on the adjacent rock armour, wetland, nearby mudflats and shorelines and foraging on nearby mudflats and subtidal areas.

Vegetation which includes suitable nesting habitat around the site will be removed during winter months and before 1st of March. This will ensure no impact on nesting birds during construction.

Lighting will be provided with the minimum luminosity sufficient for safety and security purposes. Lights will be focused away from the intertidal areas which support feeding birds. Lights will be as low as possible and light spillage will be minimised. Designs to luminaires to help reduce light spillage and to direct light to the intended area only, particularly along the northern boundary, are by using accessories such as hoods, cowls, louvres and shields.

It is important to maintain Dark Zones for roosting intertidal bird species in areas where lighting is not necessary. However, where lighting is required, this lighting should be placed at a minimum height using the lowest lux value permitted for health and safety.

4.7.3.3 *Common Tern Measures*

In order to avoid disturbing breeding Common Tern at the jetty, it is necessary that construction works at the proposed Gouldings site do not start within the breeding period April to July, so as not to introduce a new disturbance during the breeding cycle. Works should already be underway by April so birds are acclimatised before egg laying, or start in August. Works should start between September and March. This is also necessary to minimise disturbance of the colony at the Martello tower and breeding site at the pontoon.

4.7.3.4 *Peregrine Falcon Measures*

In order to avoid disturbing breeding peregrine, it is necessary that construction works at the Gouldings site do not start within the breeding period April to July, so as not to introduce a new disturbance during the breeding cycle. Works should already be underway by April so birds are acclimatised before egg laying, or start in August. Works should start between September and February/March.

4.7.4 Bats

External lighting should be kept to a minimum during construction, at locations where it is likely to disturb bats, and where possible will follow the Bat Conservation Ireland Lighting Guidelines and the Bat Conservation Trust 'Bats and artificial lighting in the UK' 2018 Guidelines, if applicable.

4.8 Alien Invasive Species Management

Following best practice guidance any amber listed species found on site i.e. Butterfly bush, will be removed through standard eradication/control methods.

Bio-security

To reduce the likelihood of invasive species being introduced to the site from construction works on other sites, it will be required that vehicles and tools will arrive on site clean. Work boots will be dipped in or scrubbed with a disinfectant solution and thoroughly dried afterwards before being used on the site for the first time. All PPE will be visually inspected and any attached vegetation or debris removed. PPE and tools will remain on site for the duration of construction. Any machinery or equipment returning from a different construction site will cleaned, power washed/steam washed and visually inspected again before re-entering the site.

Methodologies

Invasive species management methodologies and plans outlining Best Available Techniques (BAT) will be sourced from the National Invasive Species Database, from previously published documents and from the Invasive Species Ireland and Inland Fisheries Ireland websites.

4.9 Surface Water Management

Surface water management during the construction phase will be undertaken to ensure the proposed construction of the agricultural fertiliser facility will not deteriorate water quality and will safeguard the existing water quality status of the adjacent Lough Mahon.

The risks to water quality associated with construction works of this nature include sediment runoff and contamination by fuels and oils from machinery.

Shallow cut drains will be excavated to collect surface water. Collected surface water will be discharged into a shallow settlement pond to achieve separation of gross suspended solids prior to discharge to Lough Mahon.

In clean areas where there is an existing porous surface, rainfall from short duration and low intensity will drain into the existing ground. However, where there is a possibility that sheet flows from higher intensity rainfall events traverse from different areas across the site, filter drains will convey flows to the treatment system before discharge to the harbour.

All fuel storage facilities on the site will be contained within bunded areas with appropriate spill kits (to included plant nappies & absorbent mats). All plant and machinery will have emergency spill kits and refuelling will only be permitted in designated areas. If any fuel spill occurs, spill kits are to be deployed to contain the spillage and site management informed and the incident recorded. Records to include cause, scale, containment measures implemented and lessons learnt to prevent a reoccurrence. Appropriate measures will be taken dependent on the size of the fuel spill.

Concrete truck wash out will not take place on the site; it will take place in the off-site concrete batching plant. Only chutes will be cleaned out in the designated wash out area prior to leaving the site. The contents of the wash out area will be removed on a regular basis and disposed of appropriately.

4.9.1 Water Quality Management

Additional Water Quality Control Measures - infrastructure and measures used to control water quality are described in the following sub-sections.

4.9.1.1 Minimise Exposed Areas

The area of exposed ground will be kept to a minimum by maintaining where possible existing vegetation that would otherwise be subject to erosion in the vicinity of the roads and other infrastructure. This is achieved by phased construction on the site. The clearing of topsoil and existing surfaces will be delayed until just before construction begins rather than stripping months in advance.

In the unlikely event of flooding occurring on the site, the Works will be suspended, and if practicable and known in advance, preventative measures will be implemented to reduce the risk of pollution by the site.

4.9.1.2 Check Dams

Check dams will be placed at regular intervals, based on gradient, along all drains to provide flow attenuation, slow down runoff to promote settlement and to reduce scour and ditch erosion. Check dams are relatively small and constructed with gravel, straw bales or other suitable material. They will be placed at appropriate intervals and heights, depending on the drain gradient, to allow small pools to develop behind them. The design of the check dam is such that small single sized stone which provides a large surface area is held in place by large single sized stone on the downstream side as illustrated below in **Figure 3**. The larger size stone prevents wash out of the smaller stones during times of high flow. The spacing of check dams should be at least every 50m with distance between dams reducing as road gradients increase.

Figure 3: Stone check dam

4.9.1.3 Silt Fences

Silt fences placed along drains are an alternative method of reducing the volume of suspended sediment. They can be placed at the end of any locally steep section of drain. They have the double benefit of effectively producing a localised swale to reduce scour effects and also attenuating and filtering the discharge.

4.9.1.4 Wheel Washes

Wheel washes will be provided for heavy vehicles exiting the site to ensure that roads outside of the site boundary are clean. These can take the form of dry and wet wheel wash facilities. Dry wheel washes will be located upstream of wet wheel washes to remove any heavy dirt and reduce the maintenance requirements on the wet wheel washes. In the case of a wet wheel wash it is recommended that a designated bunded and impermeable wheel wash area is provided and that the resultant waste water is diverted to a settlement pond for settling out of suspended solids or removed off site by a licensed contractor.

4.9.1.5 Inspection and Maintenance

The drainage and treatment system for the proposed development must be managed and monitored at all times and particularly after heavy rainfall events during the construction phase. The drainage and treatment system should be regularly inspected and maintained to ensure that any failures are quickly identified and repaired so as to prevent water pollution.

5. AUDITING, MONITORING AND RESPONSE

5.1 Environmental Monitoring Schedule

The Monitoring Schedule for construction will also provide for the checking of equipment, materials storage and transfer areas and specific environmental controls.

A Preliminary Monitoring Schedule is provided below (see **Table 1**) and will be finalised pending appointment of the Contractor. The Contractor's developed daily Site Checklists must have the following information included at a minimum:

Table 1 Preliminary Monitoring Schedule

Aspect	Monitoring Required	Frequency	Note	Responsibility
Water	Sediment & Erosion Controls (Drainage Performance)	At least weekly during the construction phase as well as during and after significant rainfall events		Environmental Manager
Water	Fuel & Oil Storage inspection	Daily		Environmental Manager
Ecology	Material and Waste Storage	Daily		Environmental Manager
Water	Water quality monitoring	Monthly	Minimum parameters: pH, Suspended Solids, metals, nitrates, phosphates	Environmental Manager
Water	Concrete Pours	As Required	To be scheduled with pours	Environmental Manager
Archaeology	Archaeological Monitoring	As Required	Monitor ground works & excavations	Archaeologist
Dust	Stockpiles, Dust Control Measures	At least weekly during the construction phase		Environmental Manager

The Contractor will assign an on-site Environmental Manager to monitor the construction activities on a day to day basis. The duties will include completing the required checklists and coordinating with the relevant personnel (e.g. Project Ecologist, Project Archaeologist and the Design Engineer as required) ensuring all environmental monitoring is carried out.

5.2 Environmental Performance Indicators

The Appointed Project Contractor will outline the key performance indicators for the site in gauging successful site management in the prevention of pollution and the protection of the environment.

Environmental performance indicators will at a minimum include:

- Number of environmental accidents logged;
- Number of environmental incidents logged;
- Breach of procedure and corrective actions;
- Number of environmental complaints received;
- Results of monthly water quality monitoring;
- Results of monthly dust monitoring; and
- Results of site audits.

The performance indicators will be finalised by the Appointed Contractor and communicated to all relevant personnel and sub-contractors. The review periods for analysing site performance indicators must also be specified.

5.3 Environmental Preparedness and Response

In the event of an environmental incident, or breach of procedure, or where a complaint is received, the contributing factors are to be investigated and remedial action taken as necessary. The Main Contractor will ensure that the following response actions will take place:

1) the Project Manager must be informed of any incident, breach of procedure and/or complaint received, and details must be recorded in the incident/complaint register.

2) the Project Manager is to conduct/co-ordinate an investigation to determine the potential influence that could have led to the non-compliance.

3) the Project Manager is to notify and liaise with the appropriate site personnel where required, e.g. Site Environmental Manager, Project Ecologist, Project Archaeologist.

4) If necessary, the Project Manager will inform the appropriate regulatory authority. The appropriate regulatory authority will depend on the nature of the incident.

5) The details of the incident will be recorded on an Incident / Complaints Form which is to record information such as the cause, extent, actions and remedial measures used following the incident/complaint. The form will also include any recommendations made to avoid reoccurrence of the incident.

6) The Project Manager will be responsible for any corrective actions required as a result of the incident e.g. an investigative report, formulation of alternative construction methods or environmental sampling, and will advise the Main Contractor as appropriate.

7) The Project Manager is to ensure that the relevant environmental management plans/procedures are revised and updated as necessary.

6. SUMMARY

This preliminary CEMP provides the information which will be incorporated into the final Contractor-developed Plan at the construction stage of the project. The requirement on the Contractor to update these details has been explained, and there is a particular requirement for an update to the roles and responsibilities of those appointed on the site for the construction of the project.

7. REFERENCES

1. *Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects* (DoEHLG, July 2006)
2. *BS5228 –1&2:2009, Code of Practice for the Control of Noise and Vibration on Construction and Open Sites*
3. Best Practice Guidelines BPGCS005 – Oil Storage Guidelines (Enterprise Ireland).
4. Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes (Consultation Draft, National Roads Authority, October 2006)
5. Control of Dust from Construction and Demolition Activities (BRE, 2003)

8. APPENDICES

Appendix 1

Construction Phase Roles and Responsibilities

Project Manager – To be updated upon appointment of Contractor/ finalisation of CEMP

Name: _____

A Project Manager is to be appointed on behalf of the main Contractor to manage and oversee the entire project. The Project Manager is responsible for:

- implementing of the Construction and Environmental Management Plan (CEMP)
- implementing the Health and Safety Plan
- management of the construction project
- liaison with the client/developer
- liaison with the Project Team
- assigning duties and responsibilities in relation to the CEMP
- production of construction schedule
- materials procurement
- maintaining a site project diary

Construction Manager – To be updated upon appointment of Contractor/ finalisation of CEMP

Name: _____

The Construction Manager manages all the works to construct the cable route and substation, on behalf of the main contractor. The Construction Manager reports to the Project Manager. In relation to the CEMP, the Construction Manager is responsible for:

Site-Specific Method Statements

- Liaising with the Environmental Manager in preparing site-specific Method Statements for all Works activities where there is a risk of environmental damage, by incorporating relevant Environmental Control Measures and referring to relevant Environmental Control Measure Sheets;
- Liaising with the Environmental Manager in reviewing and updating site-specific Method Statements for all Works activities where Environmental Control Measure and Environmental Control Sheets have been altered, and
- Liaising with the Environmental Manager where third party agreement is required in relation to site-specific Method Statements, Environmental Control Measures and/or Environmental Control Measure Sheets.

General

- Being aware of all project Environmental Commitments and Requirements
- Ensuring that all relevant information on project programming, timing, construction methodology, etc., is communicated from the Project Manager, to the Environmental Manager in a timely and efficient manner in order to allow pre-emptive actions relating to the environment to be taken where required;
- Programming and planning of excavation works and communicating this schedule to the Environmental Manager;
- Ensuring that adequate resources are provided to design and install any environmental interventions;
- Liaising with the Design Engineer and providing information on environmental management to the Design Engineer during the course of the construction phase;
- Liaising with the Project Team in assigning duties and responsibilities in relation to the CEMP to individual members of the main contractor's project staff; and
- Ensuring that the Environmental Manager performs regular and frequent environmental site inspections.

Design Manager – To be updated upon appointment of Contractor/ finalisation of CEMP

Name: _____

The Design Engineer is appointed by the Contractor for the works.

The Design Engineer reports to the Project Manager and is responsible for:

- Design of the Works;
- Review and approval of relevant elements of the method statements – assist the Construction Manager with the overall review;
- Participating in Third Party Consultations; and
- Liaising with Third Parties through the Environmental Manager.

Environmental Manager – To be updated upon appointment of Contractor/ finalisation of CEMP

Name: _____

The Environmental Manager is appointed by the Contractor and reports to the Project Manager.

The Environmental Manager is responsible for:

General

- Being familiar with the project environmental commitments and requirements;
- Being familiar with baseline data gathered for the various environmental assessments and during pre-construction surveys;
- Assisting the Construction Manager in liaising with the Design Engineer and the provision of the information on environmental management to the Design Engineer during the course of the construction phase, and
- Liaising with the Project Team in assigning duties and responsibilities in relation to the CEMP to individual members of the main contractor's project staff.
- Implementing the environmental procedures of the CEMP
- Liaising with the Construction Manager to ensure that the control measures set out in the Schedule of Environmental Mitigation are implemented
- Liaising with the client/developer in relation to environmental issues
- Auditing the construction works from an environmental viewpoint

Site-Specific Method Statements

- Liaising with the Construction Manager in preparing site-specific Method Statements for all Works activities where there is a risk of environmental damage. These site-specific Method statements should incorporate relevant Environmental Control Measures and take account of relevant Environmental Control Measure Sheets;
- Liaising with the Construction Manager in reviewing and updating site-specific Method Statements for all Works activities where Environmental Control Measure and Environmental Control Sheets have been altered, and
- Liaising with the Construction Manager where third party agreement is required in relation to site-specific Method Statements, Environmental Control Measures and/or Environmental Control Measure Sheets.

Third Party Consultations

- Overseeing, ensuring coordination and playing a lead role in third party consultations required statutorily, contractually and in order to fulfil best practice requirements;
- Ensuring that the minutes of meetings, action lists, formal communications, etc., are well documented and that the consultation certificates are issued to the Design Engineer as required;
- Liaising with all prescribed bodies during site visits, inspections and consultations;
- Where new Environmental Control Measures are agreed as a result of third party consultation, ensuring that the CEMP is amended accordingly;
- Where new Environmental Control Measures are agreed as a result of third party consultation, the Environmental Manager should liaise with the Construction Manager in updating relevant site-specific Method Statements, and
- Where required, liaising with the Construction Manager in agreeing site-specific Method Statements with third parties.

Licensing

- Ensuring that all relevant works have (and are being carried out in accordance with) the required permits, licences, certificates, planning permissions, etc,;
- Liaising with the designated licence holders with respect to licences granted pursuant to the Wildlife Act, 1976, as amended (if required);
- Bringing to the attention of the Project, Design and Construction Team any timing and legal constraints that may be imposed on the carrying out of certain tasks.

Waste Management Documentation

- Holding copies of all permits and licences provided by waste contractors;
- Ensuring that any operations or activities that require certificates of registration, waste collection permits, waste permits, waste licences, etc., have appropriate authorisation, and
- Gathering and holding documentation with the respect to waste disposal.

Legislation

- Keeping up to date with changes in environmental legislation that may affect environmental management during the construction phase;
- Advising the Construction Manager of these changes, and
- Reviewing and amending the CEMP in light of these changes and bringing the changes to the attention of the main contractor's senior management and subcontractors.

Specialist environmental contractors

- Identifying requirements for specialist environmental contractors (including ecologists, waste contractors and spill clean-up specialists) before commencement of the project;
- Procuring the services of specialist environmental contractors and liaising with them with respect to site access and report production;
- Ensuring that the specialist environmental contractors are competent and have sufficient expertise to co-ordinate and manage environmental issues, and
- Co-ordinating the activities of all specialist environmental contractors on environmental matters arising out of the contract.

Environmental Induction Training and Environmental Tool Box Talks

- Ensuring that Environmental Induction Training is carried out for all the main contractor's site personnel. The induction training may be carried out in conjunction with Safety Induction Training,
- Providing toolbox talks on Environmental Control Measures associated with Site-specific Method Statements to those who will undertake the work.

Environmental Incidents/Spillages

- Prepare and be in readiness to implement at all times an Emergency Response Plan.
- Notifying the relevant statutory authority of environmental incidents, and
- Carrying out an investigation and producing a report regarding environmental incidents. The report of the incident and details of remedial actions taken should be made available to the relevant authority, the Design Engineer and the Construction Manager.

Site environmental inspections

- Carrying out regular documented inspections of the site to ensure that work is being carried out in accordance with the Environmental Control Measures and relevant site-specific Method Statements, etc.,
- Carrying out a daily inspection of the bunded areas and site drainage system.
- Appending copies of the inspection reports to the CEMP.
- Liaising with the Construction Manager to organise any repairs or maintenance required following the daily inspection of the site.

Other Roles

Health and Safety Personnel – To be updated upon appointment of Contractor/finalisation of CEMP

The Health and Safety personnel for the construction project is appointed by the Contractor in line with the Construction Regulations:

- carrying out duty of Project Supervisor Construction Stage
- responsible for safety induction of all staff and personnel on site
- implementing the Health and Safety Plan
- auditing and updating the Health & Safety Plan
- all other required legal duties

Project Archaeologist – To be updated upon appointment of Contractor/finalisation of CEMP

The Archaeologist may be appointed by the Developer or the Contractor and is responsible for:

- ensuring implementation of archaeological mitigation measures
- monitoring of groundworks associated with the development
- liaison with the Environmental Manager/Construction Manager
- liaison with the Project Manager/client/developer

Project Ecologist– To be updated upon appointment of Contractor/finalisation of CEMP

The Ecologist may be appointed by the Developer or the Contractor and is responsible for:

- ensuring implementation of ecological mitigation measures
- advising on re-vegetation onsite
- monitoring of success of on re-vegetation

Geotechnical Engineer - – To be updated upon appointment of Contractor/finalisation of CEMP

The Geotechnical Engineer may be appointed by the Developer or the Contractor and is responsible for:

- Assisting the Design Engineer as required
- Providing advice on geotechnical aspects of the works
- Requirement for specific geotechnical engineer to be finalised by the appointed Contractor

All site personnel – To be updated upon appointment of Contractor/finalisation of CEMP

The site personnel appointed by the Contractor are responsible for:

- adhering to the relevant Environmental Control Measures and relevant site-specific Method Statements
- adhering to the Health and Safety Plan
- reporting immediately to the Environmental Manager and Construction Manager any incidents where there has been a breach of agreed procedures including:
  - a spillage of a potentially environmentally harmful substance;
  - an unauthorised discharge to ground, water or air, damage to a protected habitat, etc

Contacts

Main Contractor Contacts

Position Title:	Name:	Phone:	Email:
Project Manager			
Construction Manager*			
Environmental Manager*			
Safety (PSCS)*			
Safety Officers*			
Site Emergency Number*			

*24 hour contact details required

Employer Contacts

Organisation:	Position:	Name:	Phone:	Email:
Employers Ecologist	Project Ecologist			
Employers Archaeologist	Project Archaeologist			
Safety (PSDP)	Overall Project PSDP			
Employers Public Liaison Officer	Project Liaison Officer			

Third Party Contacts

Organisation:	Position:	Name:	Phone:	Email Address:
Inland Fisheries Ireland				
National Parks and Wildlife Service				
Environmental Protection Agency				
Local authorities				
Department of the Environment, Heritage and Local Government				
Health and Safety Authority				
Emergency Services				
Other, as appropriate.				

Appendix 5.1
Ecological Surveys

1 HABITAT SURVEY

Site surveys were conducted, by staff ecologists from Malachy Walsh and Partners (MWP), Engineering and Environmental Consultants, at the Marino Point proposal site and surrounding land during June, 2019. The survey was designed to compile comprehensive baseline information regarding the existing ecology of the development site.

The habitat surveying, categorisation and mapping of habitats recorded, had regard to the Heritage Council's national standards as outlined in 'Best Practice Guidance for Habitat Survey and Mapping' (Smith *et al.*, 2011) and 'A Guide to Habitats in Ireland' (Fossitt, 2000) and incorporated a targeted survey for certain rare or protected species and habitats present within the study area. Scientific and common names for plants follow Parnell *et al.* (2012) and Blamey *et al.* (2003), respectively. Habitat boundaries and associated attribute data were mapped using desk-based GIS software, namely ArcView (10.2.2) which was also used to calculate habitat areas and lengths.

2 SURVEYS OF SURFACE WATERBODIES

Three surface waterbodies were identified from online aerial photography and site plans. These waterbodies were surveyed on the 25th June 2019. Plants present were identified and the waters were classified as habitats as per Fossitt (2000). Macroinvertebrates were sampled/recorded as outlined below.

Table 2-1: Location of surface waterbody survey sites at Marino Point.

Site	Location	Coordinate
1	Northern extent of site	577764, 569815
2	Western side of site	577276, 569691
3	Eastern side of site	577633, 569538

Figure 2-1

Macroinvertebrates at Site 1 were noted by walking along the margins of the waterbody and observing the epifauna attached to hard surfaces. Cues for infauna were sought, such as holes in sandy/muddy substrates. Macroinvertebrates at Site 1 were identified on site with reference to Barnes (1994) and recorded.

Biological sampling of macroinvertebrates was carried out in the final settlement pond (Site 2) using methodology in Irvine *et al.* (2001). Benthic and littoral macro-invertebrates were collected from the margin of the pond by disturbing the substratum with a hand net and passing the net (mesh size 0.5 mm; 350 mm diameter) through the water above the disturbed area. In addition, a pre-sample sweep to collect surface dwelling invertebrates and a post sample manual search, lasting one minute, was undertaken during which any invertebrates attached to submerged plant stems, stones, logs or other solid surfaces were collected by hand and placed in the net. It is noted that depth prevented collection of macroinvertebrates from areas away from the margin of the pond. This sample was fixed in a 10% formalin solution. In the laboratory, the sample was sorted by eye from a white sorting tray (0.25 x 0.3m) and identified to the furthest practical taxonomic level using a binocular microscope.

Biological sampling was not undertaken at Site 3 for health and safety reasons (difficult/dangerous access).

3 MAMMAL SURVEY (NON BAT SPECIES)

Mammal walkover surveys were conducted by Wildeye wildlife surveyors. The aim of the surveys was to determine a species list and the general pattern of usage of the development site and adjacent habitats by non-bat mammal species.

A multi-disciplinary approach was taken, with the following survey methods employed:

- Walked Transects Surveys
- Remote Camera Trapping Surveys
- Hinterland Otter Survey

The full Report is provided in **Appendix 5-3.**

4 BAT SURVEY

4.1 PRELIMINARY ROOST HABITAT ASSESSMENT & STRUCTURAL SURVEY

A Preliminary Roost Habitat Assessment (PRHA) and structural survey comprising a daylight inspection of each building was carried out, by a staff ecologist from MWP, on June 23rd and 24th, 2019. Binoculars, hand and head torches were used and an endoscope was available to enable thorough internal inspection of any crevices or void spaces should they be present. An extensive photographic record of the buildings and surroundings was taken. The methodology was designed to:

- establish whether or not suitable roosting habitat was present;
- determine the physical extent of any potential roosting location recorded; and
- search for evidence of bat usage, such as staining, lack of spider webs, feeding signs or droppings.

One building, the former Ammonia Compressor Building (No. 33 in **Figure 4-1**, below) was deemed unsafe due to the condition of the internal stairs. However, notwithstanding the multi-storey internal structure, the building was of uniform design with sheet cladding on a concrete and girder supporting structure and comprised an open void with relatively uninterrupted views of the entire interior space.

The survey methodology was conducted as per Aughney *et al.* (2008) and Collins (2016).

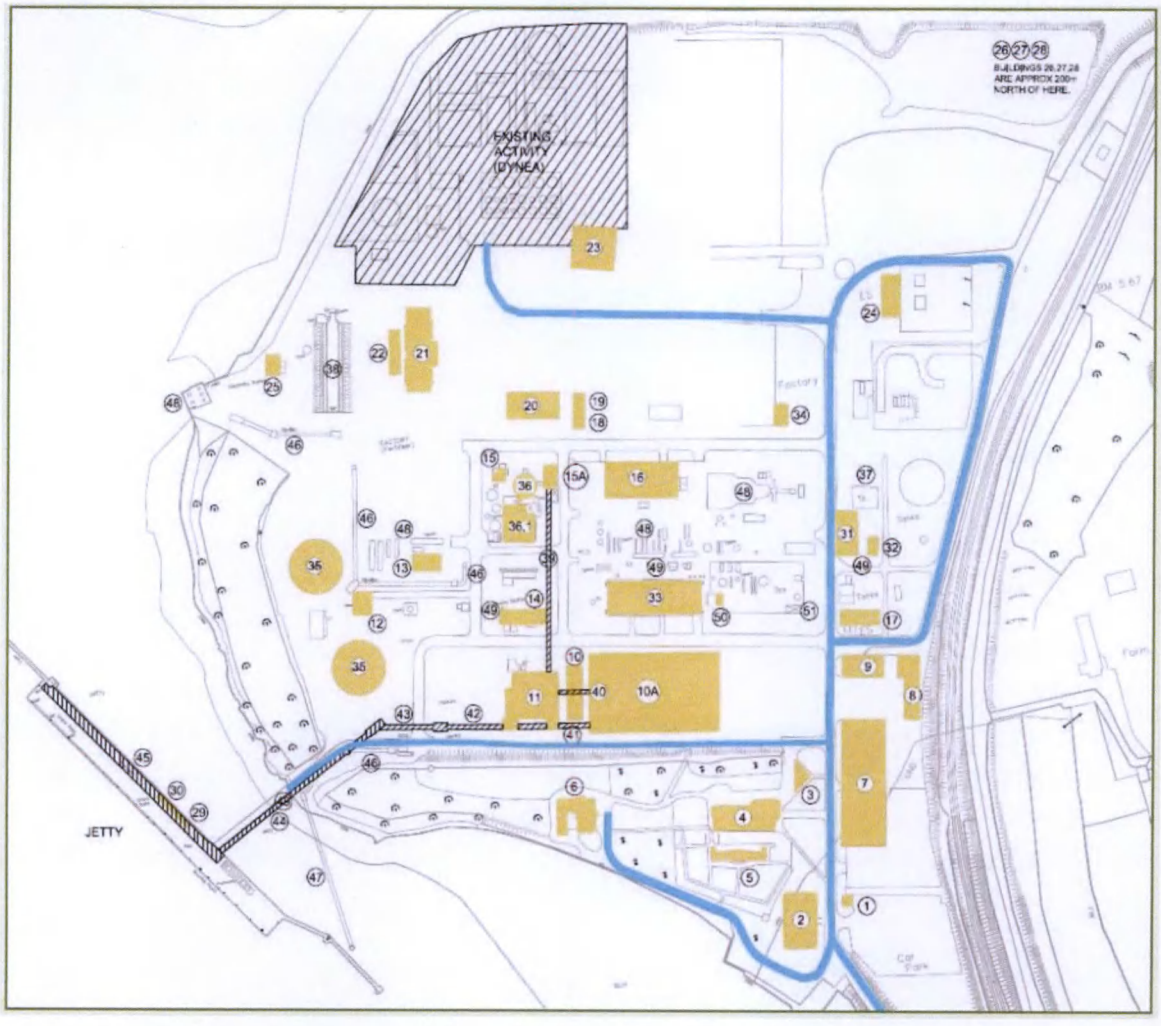

Figure 4-1: Site Layout [adapted from RPS (2012)

4.2 BIOACOUSTIC RECORDING UNIT

A Passive Automated Bat Survey (PABS), designed to passively sample and record bat activity was conducted on the night of June 23rd. A Song Meter SMZC[1] bioacoustic recording unit was deployed at a point centrally located within the development site. Calls emitted by bats that passed within the detecting range of the unit were recorded and their calls stored for later analysis. The units have an omnidirectional microphone that detects bat ultrasonic calls and each unit records data on SD cards. As each unit has storage capacity of 32GB of data the bat detector is effectively used as a bat activity data logger.

The survey location was chosen in the expectation that, should bats be present, detectable levels of activity were reasonably foreseeable at the selected location, particularly in light of the fact that bats are known to exhibit a high level of site loyalty and will frequently return to the same foraging sites night after night (Entwhistle *et al.*, 2001). This characteristic of the sampling location also increased the probability that any species with a presence in the area would, at some point, be encountered.

[1] Manufactured by Wildlife Acoustics Ltd.

Post survey, the sound files are converted, using a proprietary software[2], to produce sonograms (graphs of the sound recorded). These are reviewed to determine the number of calls and call sequences recorded each evening. Using their training and experience the surveyor uses the software to eliminate all data files comprised of ultrasonic sounds that are not bat calls. Data files containing fewer than 3 search-phase bat calls are then eliminated to further minimise the likelihood that non-bat ultrasonic sounds would be counted as calls. A single vocalization by a bat is defined as a call and the series of calls emitted by a bat during a single pass over the detector is considered a call sequence. As each species has a unique audio signature, the sonograms, or graphs, can be used to distinguish between one species and another. Once an individual call is identified the recording is labelled using tools available in the software.

5 BIRDS

5.1 WINTERING BIRD SURVEY

Wintering bird surveys were completed, by Wildeye wildlife surveyors, during 2018/2019 on a monthly basis between November and March, inclusive. The full survey design and methodologies employed are described the report included in **Appendix 5.3**

Low water bird counts were undertaken monthly at a number of areas including the intertidal mudflats to the north and south of the main site and northern annex as well as the channels to the north, west and south of the site. Refer to **Table 5-1**.

Table 5-1: Locations of low water bird counts.

Location code	Location Description
L1	Mudflats northeast of northern annex
L2	Mudflats north of main site including channel between Foaty Island and Carrigrenan Point
L3	West of main site including main channel at Lough Mahon
L4	South of main site including main channel with intertidal mudflats in the northeast corner
L5	Main channel along West Passage
L6	Main channel at Monkstown
L7	Intertidal mudflats at Monkstown Creek

High tide roost counts were undertaken monthly within the main site and the northern annex, at the intertidal mudflats to the south and north of the main site, and to the northeast of the northern annex. Locations of the counts are outlined in **Table 5-2.**

[2] AnalookW 4.1t

Table 5-2: Locations of high water bird counts,

Location code	Location Description
H (H1-H7 & H9-H12)	Main site
H8	Northern annex
H13	South of main site
H14	Northeast of northern annex
H15	North of main site
H16	East of main site and south east of northern annex

5.2 BREEDING BIRD SURVEY

Five general breeding bird surveys were conducted, once monthly from April to August, inclusive, 2019, in order to fully record across the breeding season, including early breeding resident birds and birds breeding later in the year such as late arriving migrants. In addition, specific surveys were conducted for a small number of species which could potentially breed on site. These species were Peregrine, Barn Owl and Kingfisher. The full survey design and methodologies employed are described the report include in **Appendix 5-3**

Appendix 5.2
National Roads Authority (NRA) Ecological Assessment Guidelines

International Importance	'European Site' including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation. Proposed Special Protection Area (pSPA). Site that fulfils the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended). Features essential to maintaining the coherence of the Natura 2000 Network.1 Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive. Resident or regularly occurring populations (assessed to be important at the national level)2 of the following: Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and/or Species of animal and plants listed in Annex II and/or IV of the Habitats Directive. Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971). World Heritage Site (Convention for the Protection of World Cultural & Natural Heritage, 1972). Biosphere Reserve (UNESCO Man & The Biosphere Programme). Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979). Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979). Biogenetic Reserve under the Council of Europe. European Diploma Site under the Council of Europe. Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 293 of 1988).[3]
National Importance	Site designated or proposed as a Natural Heritage Area (NHA). Statutory Nature Reserve. Refuge for Fauna and Flora protected under the Wildlife Acts. National Park. Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve; Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park. Resident or regularly occurring populations (assessed to be important at the national level)4 of the following: Species protected under the Wildlife Acts; and/or Species listed on the relevant Red Data list. Site containing 'viable areas'5 of the habitat types listed in Annex I of the Habitats Directive.
County Importance	Area of Special Amenity.[6] Area subject to a Tree Preservation Order. Area of High Amenity, or equivalent, designated under the County Development Plan. Resident or regularly occurring populations (assessed to be important at the County level)[7] of the following: Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; Species of animal and plants listed in Annex II and/or IV of the Habitats Directive; Species protected under the Wildlife Acts; and/or Species listed on the relevant Red Data list. Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance. County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local BAP,[8] if this has been prepared. Sites containing semi-natural habitat types with high biodiversity in a county context and a high degree of naturalness, or populations of species that are uncommon within the county. Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.

Locally Important (higher level)	Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP, if this has been prepared; Resident or regularly occurring populations (assessed to be important at the Local level)[9] of the following: Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; Species of animal and plants listed in Annex II and/or IV of the Habitats Directive; Species protected under the Wildlife Acts; and/or Species listed on the relevant Red Data list. Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality; Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value
Locally Important (lower level)	Sites containing small areas of semi-natural habitat that are of some local importance for wildlife; Sites or features containing non-native species that are of some importance in maintaining habitat links.

(Adapted from NRA, (2009))

[1]See Articles 3 and 10 of the Habitats Directive.

[2] It is suggested that, in general, 1% of the national population of such species qualifies as an internationally important population. However, a smaller population may qualify as internationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

[3] Note that such waters are designated based on these waters' capabilities of supporting salmon (*Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus*) and whitefish (*Coregonus*).

[4] It is suggested that, in general, 1% of the national population of such species qualifies as a nationally important population. However, a smaller population may qualify as nationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

[5] A 'viable area' is defined as an area of a habitat that, given the particular characteristics of that habitat, was of a sufficient size and shape, such that its integrity (in terms of species composition, and ecological processes and function) would be maintained in the face of stochastic change (for example, as a result of climatic variation).

[6] It should be noted that whilst areas such as Areas of Special Amenity, areas subject to a Tree Preservation Order and Areas of High Amenity are often designated on the basis of their ecological value, they may also be designated for other reasons, such as their amenity or recreational value. Therefore, it should not be automatically assumed that such sites are of County importance from an ecological perspective.

[7] It is suggested that, in general, 1% of the County population of such species qualifies as a County important population. However, a smaller population may qualify as County important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

[8] BAP: Biodiversity Action Plan

[9] It is suggested that, in general, 1% of the local population of such species qualifies as a locally important population. However, a smaller population may qualify as locally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.