Knockharley Landfill Limited

PROJECT WEST

Outline Construction Environmental Management Plan

IE0037027.9697-R13
NOVEMBER 2025

PUBLIC

Knockharley Landfill Limited

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1 INTRODUCTION

WSP Ireland Consulting Ltd (WSP) has been commissioned to prepare this outline Construction Environmental Management Plan (CEMP) on behalf of Knockharley Landfill Ltd, the Landfill operator and operator of the Proposed Knockharley Landfill Expansion, on lands located at Knockharley, Navan, (includes townlands of Tuiterath & Flemingstown), Co Meath hereafter referred to as the 'Site' or 'Proposed Project'.

This outline Construction Environmental Management Plan (CEMP) has been prepared to communicate key environmental obligations relating to the management of the development/construction phase of the works for a landfill expansion.

The CEMP comprises general measures and will be updated with a series of discipline-specific measures that align with the proposed mitigation and monitoring measures described in the Natura Impact Statement (NIS) and other supporting documentation including the Environmental Impact Assessment (EIAR) submitted for the Proposed Project at the Planning Stage.

This CEMP is a 'live' document, which will be updated by the Main Contractor, as the project has progresses and development methodologies and phasings will be available in more detail. In particular, the CEMP shall be updated to ensure the requirements of all relevant planning conditions are incorporated.

1.1 OBJECTIVES & SCOPE

This CEMP outlines the approach to the management and minimisation of environmental impacts during the development phase of the Proposed Project, with the primary aim of avoiding, reducing or offsetting any adverse impacts identified in the EIAR & NIS. The construction phase CEMP will serve as a consistent point of reference for environmental considerations throughout the construction period for the Contractor, Subcontractors, the Landfill operator and the planning authority.

This CEMP identifies the legislative, planning and policy framework within which the works is being carried out, and how those requirements will be met. It also details the key roles and responsibilities for individuals involved in the construction works phase of the Proposed Project, as well as the training requirements for all staff in relation to managing environmental considerations.

The Landfill operator and the Contractor are committed to undertaking the management and mitigation measures detailed in this CEMP. The scope of this document relates to the construction of additional active void space of the Proposed Project.

1.2 ROLES AND RESPONSIBILITIES

The anticipated roles and responsibilities of the key parties involved in the management of environmental issues during the Construction works are set out in Table 1 below. Names and details shall be updated on commencement of construction works. However, it should be noted that all members of staff are responsible for ensuring the requirements of the CEMP and associated construction plans are followed.

Table 1: Roles and Responsibilities

Position	Name	Contact Details
Project Manager	Sean Smith	087-2644112
Environmental Officer / Coordinator	Rebecca McDonald	086-1902770

Any changes in roles and responsibilities will be identified and clearly communicated to those affected.

The responsibilities of the Contractor's **Project Manager** will include the following as a minimum:

- Implement the CEMP and all associated management procedures and mitigation;
- To be the overall accountable person for the environmental compliance of the operations during the Construction works phase, including to ensure works are conducted in accordance with the relevant environmental requirements of the application and consent documentation and any other regulatory and contractual requirements;
- To ensure that relevant staff have received appropriate environmental training and site-specific information; and
- Appoint suitably qualified and competent subcontractors.

The responsibilities of the Contractor's **Environmental Officer / Coordinator** will be:

- Manage the requirements of the CEMP during the course of the construction phase;
- Maintaining, inspecting and updating the CEMP and other relevant documents;
- Liaise with and provide advice to staff, sub-contractors and other relevant parties with regards to the environmental risks and controls for tasks;
- Monitor the performance of activities to ensure that identified risks and controls are implemented effectively;
- Undertake routine site inspections, initiate appropriate actions, and complete a weekly environmental inspection report;
- Management of the environmental monitoring programme including noise, dust, and provide status reports, as appropriate;
- Conduct environmental audits as required by the CEMP, to include audits of subcontractors and suppliers, as appropriate;
- Assess monitoring data for compliance with identified thresholds set out in the planning consents;
- Assist in the investigation and resolution of exceedances of thresholds, complaints and incidents;
- Documenting and maintain records of above audits, inspections and reports securely; and
- Notify the Project Manager or their appointed compliance representative of any deficiencies in the performance of the CEMP, so that necessary improvements can be implemented.

2 STAFF TRAINING

Environmental training will be delivered and assessed throughout the construction period, to ensure the relevant aspects of the CEMP and associated construction plans are communicated to the project team and front-line staff (including relevant sub-contractors).

The Contractor will ensure that the training is appropriate for the level of works being undertaken by the staff and sub-contractors. The training will be provided as appropriate in the below format:

- Site Environmental Inductions;
- Daily Pre-Start Meetings;
- Environmental Toolbox Talks;
- Incident and Near Miss bulletins; and
- Sub-contractor kick-off meetings.

Only suitably qualified and trained personnel will conduct certain tasks, including refuelling of plant, management of any chemical stores, conducting specialised environmental monitoring and the management of waste stores.

The Contractor will ensure that:

- All staff and sub-contractors receive instruction, information and training appropriate to the role and works they are conducting;
- All staff are aware of the reporting procedures surrounding environmental incidents, and that all such incidents are required to be reported immediately; and
- All staff are aware of the environmental sensitivities of the area surrounding the works zone and how certain works can cause impact and effects.

3 DESCRIPTION OF THE PROJECT AND SITE

3.1 PROJECT LOCATION

The Site is located at the Knockharley Landfill, (includes townlands of Tuiterath & Flemingstown), approximately 9.5 km east of the town of Navan. The Site is situated approximately 6.5 km south of Slane and is west of the village of Duleek. The N2 national road is located less than 1km to the west of the Site.

3.2 DEVELOPMENT DESCRIPTION

The expansion of the existing landfill by construction of an additional active void space of 3.38 million m^3 for landfilling (with further void space of 807,000 m^3 for the 'Piggyback Cell'). Permission is sought for the acceptance of waste until the expanded landfill void is full.

There will be no increase in the permitted annual acceptance of up to 435,000 tonnes per annum of non-hazardous wastes. Which comprises up to 150,000 tonnes of incinerator bottom ash (IBA), as well as household, commercial and industrial wastes including residual fines, non-hazardous contaminated soils, construction and demolition (C&D) wastes and baled recyclables. In addition, the acceptance of up to 5,000 tonnes per annum of stable non-reactive hazardous waste.

3.3 EXISTING SITE

The Site is an existing landfill with an Industrial Emissions license (W0146-02). The waste for disposal at the landfill consists of household, commercial and industrial waste and stable, non-reactive hazardous waste. Also, IBA will be recovered at the landfill. and indoor storage of baled recyclables and baled municipal solid waste will also be provided.

The installation covers an area of 135 hectares, of which approximately 25 hectares is utilised for the landfill. The site infrastructure includes a landfill gas collection and utilisation plant, flaring system, leachate management system, surface water management system and associated infrastructure including weighbridges, wheelwash, waste inspection and quarantine area, maintenance garage, administration building and a car parking area.

3.4 CONSTRUCTION/LANDSCAPING PHASE SEQUENCING & ACTIVITIES

The expansion of the landfill will follow the below proposed sequence:

- Phase 1 (Years 0-2) – construction of Cell 31 and Cell 32, including a ramp for access
- Phase 2 (Years 3-4) - construction of Cell 33 and Cell 34, including a ramp for access
- Phase 3 (Years 6-7) - construction of Cell 35 and Cell 36; capping of Cell 31 and Cell 32.
- Phase 4 (Years 9-10) - construction of Cell 37 and Cell 38; capping of Cell 33 and Cell 34
- Phase 5 (Years 12-14) - construction of Cell 39; capping of Cell 35 and Cell 36
- Phase 6 (Years 16-17) - capping of Cell 37 and Cell 38. The original landfill area will be capped and Cell 40 will be created as a piggyback cell between the original landfill and the proposed landfill areas which are capped.
- Phase 7 (Years 18-21) – Cell 39 will be capped and Cell 40 (piggyback cell) will be extended southwards and subsequently capped.

4 LEGAL COMPLIANCE

During the construction and landscape restoration of Site and as part of the environmental management, the Contractor will adhere to all relevant Irish and EU environmental legislation, guidelines and best practice measures during the construction phase, including legislation relating to ecology and biodiversity; air; water and groundwater; and noise and vibration.

The Contractor shall have regard for the guidance and advice of the ISO14001 environmental management standard (ISO 14001:2015 Environmental management systems), and relevant Construction Industry Research and Information Association's (CIRIA) guidance including, C741 Environmental good practice on site guide (fourth edition)[1].

The Contractor, and any subcontractors, will comply with the CEMP and associated management plans in order to adhere to relevant legislation and to meet relevant best practice measures during the construction phase.

This CEMP will be regularly reviewed, at each significant change in activities, new works packages, change in contractor and as a minimum every 6 months and updated to ensure continued legal compliance.

[1] CIRIA, (2015), 'Environmental good practice on site guide (fourth edition) (C741)'. Ciria.org. Available at: https://www.ciria.org/ItemDetail?iProductcode=C741&Category=BOOK

5 ENVIRONMENTAL SITE MANAGEMENT

5.1 GENERAL

A range of general environmental mitigation measures have been committed to that will help to avoid, reduce or offset potential impacts during the construction phase of the Proposed Project. The construction phase involves the phased construction of the landfill extension and the removal of ESB pylons. Adherence to this CEMP is the primary general mitigation measure. Additional mitigation measures will be outlined in the Environmental Impact Assessment Report (EIAR), and in the Natura Impact Statement (NIS) required submission to the planning authority Any mitigation measures outlined in these documents should be incorporated into future revisions of this CEMP.

The Contractor and Environment Officer / Coordinator will refer to the good practice provision in the Construction Industry Research and Information Association's (CIRIA) C741 Environmental good practice on site guide (fourth edition).

5.1.1. HOUSEKEEPING

The Contractor will emphasise the importance of good housekeeping during the Proposed Project. Housekeeping is an important part of good environmental practice, and it helps everyone to maintain a more efficient and safer site. The site should be tidy, secure, and have clear access routes that are well signposted. The appearance of a tidy, well managed site can reduce the likelihood of theft, vandalism or complaints.

The Contractor and Environmental Officer / Coordinator will ensure that they:

- Adequately plan the site with designated area of materials and waste storage, including metal waste from ESB pylon removal;
- Segregate different types of waste as it is produced and arrange frequent removal;
- Keep the Site and external areas clean and tidy;
- Ensure no windblown litter or debris leaves the Site;
- Use covered skips and bins;
- Ensure that materials and plant storage areas are properly managed. Lightweight materials to be covered with sheeting and secured as required;
- Keep hoardings tidy and repair as necessary;
- Frequently brush and clean wheel washing facilities;
- Maintain haul routes in a clean and tidy condition;
- Ensure adequate space is given for the safe refuelling of site vehicles with appropriate protections in place for refuelling operations;
- Keep roads free from mud using a road sweeper; and
- Ensure the Site is secure.

5.1.2. WORKING HOURS

Works will generally be confined to 08:00 to 18:30 Monday to Saturday.

No work will be carried out on Sundays or bank holidays and the Site will remain secure when works are not taking place.

5.1.3. SITE LIGHTING

Lighting can be an important deterrent to vandals and thieves, but it may annoy the local residents and disturb ecology. The Contractor will keep any site lighting at the minimum brightness necessary for adequate security and safety.

Directional lighting will be used so that it does not intrude on nearby properties. The below mitigation measures are proposed, however, these are subject to the findings of the EIAR.

- Light standards will be fitted with low intensity, horizontal cut-off LED light fittings employing a narrow directional light or cowled light. This will avoid the effect of light spill arising.
- The lighting includes dimming by 30% post curfew hours.
- Light standards and associated lighting will be directed away from areas of open space.
- No floodlighting will be used.
- The external lighting for the Construction Phase works has been designed to achieve the performance requirements as set out in the standard Bats and Lighting in the UK – Bats and the Built Environment Series (Institute of Lighting Professionals, September 2018).

5.1.4. CONSTRUCTION SITE SECURITY

Contractors can be held liable for environmental damage even when it is caused by vandals. Site security is an important component of good environmental management. Often, vandals cause damage that harms the environment by:

- Opening taps on tanks containing fuel, or cutting fuel lines;
- Tipping out other liquids from drums and containers;
- Damaging/stealing raw materials;
- Playing on plant – damaging it and using it to cause damage;
- Destroying works in progress; and
- Setting materials/waste on fire.

The Main Contractor will ensure:

- The Site boundary is secured using perimeter hoarding with high quality locks on gates and access points;
- Materials are not stacked against the boundaries so that opportunities to scale hoarding are prevented; and
- Position fuels, or hazardous/flammable materials away from boundaries to avoid the potential for theft and arson.

5.2 AIR QUALITY

Dust and emissions arising from construction activities can cause health risks to receptors and nuisance and annoyance to local residents and businesses. Construction dust can originate from numerous sources during the construction/landscaping phase. The level of dust emitted will be dependent on the activity undertaken, the location of the activity on Site, and the nature of the dust. The generation and dispersion of the dust will be influenced by other meteorological factors such as wind speed and direction and/or, periods of dry weather. Construction traffic movements have potential to generate dust emissions as vehicles travel along the public road routes away from the

Site. All operations on-site shall be carried out in a manner such that air emissions do not result in significant impairment of, or significant interference with amenities or the environment beyond the site boundary.

The following measures are to be implemented to reduce ambient impacts on air quality and human health from potential dust generated during the construction works phase.

The following dust suppression practices are to be implemented during the construction phase:

- Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic;
- Site roads which have the potential to give rise to fugitive dust will be inspected daily and must be regularly watered, as appropriate, during dry and/or windy conditions;
- Provision of a water bowser to spray work areas, haul roads and stockpiles. The amount sprayed will be sufficient to suppress the dust and not be such as to allow any run-off into watercourses;
- Vehicles using site roads will have their speed restricted, and this speed restriction must be enforced rigidly, the speed limit may be restricted further on internal haul routes where there is an extremely dusty environment;
- The screening berms will be seeded/planted immediately following construction to establish vegetated cover and prevent windblown erosion and associated dust emissions;
- Vehicles exiting the site shall make use of a temporary closed system wheel wash facility where appropriate prior to entering onto the public road; and
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.

The EPA Licence sets a dust deposition limit of 350 mg/m^2/day, which must be adhered to at designated on-site monitoring locations. It also outlines the required dust monitoring programme, including monthly measurements. This monitoring will continue throughout the Proposed Project.

5.3 POPULATION AND HUMAN HEALTH

To mitigate potential community disturbance during enabling and construction stages, the final Construction Environmental Management Plan (CEMP) will be implemented in full. The main measures to be undertaken in relation to population and human health:

- Access to the construction site will be restricted to authorised personnel only. Hoarding and fencing will be erected along boundaries as appropriate.
- The health and safety considerations and hazards present during the construction phase will be managed by the Contractor and their nominated ‘Project Supervisor Construction Stage’ (PSCS).
- The PSCS role will remain in place at the site from the beginning of works until the project has been completed.
- The Contractor will develop a site health and safety management plan to protect personnel working on the site and other members of the public who may be affected by the construction works.

5.4 NOISE AND VIBRATION

During the works the contractor shall comply with the requirements of BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and

Open Sites) as well as Safety, Health and Welfare at Work (General Application) Regulations 2007, Part 5 Noise and Vibration.

In particular, the following practices are to be implemented during the construction phase:

- Limiting the hours during which site activities that are likely to create high levels of noise are permitted;
- Material drop heights from plant to plant or from plant to stockpile will be minimised;
- Selection of plant with low inherent potential for generation of noise;
- Implementation of noise reduction measures such as acoustic enclosures;
- Avoid unnecessary revving of engines and switch off plant when idle; and
- All vehicles and mechanical plant used for the purpose of the Works shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order. In addition, all diesel engine powered plant shall be fitted with effective air intake silencers.

All ancillary pneumatic percussive tools shall be fitted with mufflers or silences of the type recommended by the manufacturers, and where commercially available, dampened tools and accessories shall be used.

5.4.1. NOISE LIMITS

The EPA Licence establishes noise limits of 55 dBA during daytime and 45 dBA at night, which must be observed at off-site sensitive receptors. It also mandates a noise monitoring programme involving quarterly assessments at designated noise-sensitive locations. This monitoring will be maintained throughout the Proposed Project.

5.5 ECOLOGY AND BIODIVERSITY

Potential impacts to ecology and biodiversity will be managed through a combination management and mitigation measures during aftercare and restoration stage. Mitigation measures which relate to the protection of water and are detailed in Section 5.6 below.

A number of other mitigation measures are recommended for the Proposed Project:

- The retention of the treelines and hedgerows in their natural state. Where retention is not feasible, vegetation clearance and tree felling will be carried out outside of the breeding bird season;
- Construction works will take place during daylight hours to minimise disturbance to nocturnal species;
- A bat survey will be carried out before any tree felling takes place where trees have been identified as a potential bat roost. This survey will be carried out by a suitably qualified and experienced ecologist and any recommendations arising from the survey will be implemented on Site;
- During stream diversion and culverting, vegetation clearance will be minimised. In-stream silt traps will be installed and maintained throughout the works. Where necessary, diverted water and surface runoff will be directed to the on-site attenuation lagoon to reduce sediment entering the stream;, All instream works and works adjacent watercourses shall adhere to Inland Fisheries Guidelines on protection of fisheries during construction works in and adjacent to waters;

- Any in-stream works will be carried out in consultation with the Planning Authority and Inland Fisheries Ireland (IFI), and will be subject to Section 50 approval from the Office of Public Works (OPW). Seasonal restrictions for these works apply. .

5.5.1. INVASIVE SPECIES

A number of mitigations are considered pertinent to the Proposed Project as follows:

- If any imported materials or soils are necessary they will be of a suitable quality that will not lead to the groundwater or surface water contamination. Any imported material will come from a suitable source where the quality of the material will have been confirmed prior to acceptance;
- The Works Contractor shall confirm that the plant and equipment to be used have not been operated on sites where invasive species are present. It the plant and equipment has been used on such sites the Contractor shall provide confirmation that all items have been thoroughly cleaned, with particular attention paid to caterpillar tracks, HGV and dumper truck wheels and chassis;
- All plant and equipment that will be used in instream works shall be steam-cleaned prior to arrival on site to prevent the spread of invasive species or disease entering the water;
- All personal protective equipment (PPE) previously used in off-site freshwater environments must be disinfected and thoroughly dried before being brought onto the site. This procedure must also be followed when moving between different in-stream work areas within the Proposed Project boundary; and
- All construction personnel involved in in-stream works will be trained in the *Check – Clean – Dry* protocol to prevent the spread of invasive species and aquatic pathogens:
    - Check**:** Inspect all equipment and clothing to ensure no water, plant fragments, or organisms are being carried. Pay special attention to items that retain moisture, are difficult to inspect, or remain damp.
    - Clean: Thoroughly clean all equipment, footwear, and clothing after any water-based activity. Remove all visible plant material, seeds, and organisms from hidden areas, seams, and surfaces.
    - Dry: Ensure all items are completely dried before reuse. Where possible, allow equipment and clothing to air dry for at least 48 hours to eliminate any remaining aquatic organisms.

5.6 WATER, LAND, SOILS AND GEOLOGY

Potential impacts to the water environment (surface water and groundwater), soils, land and geology during the construction period will be managed through a combination best practice measures and design features embedded into the design of the overall project. Embedded design measures provided for in the design of the development in order to be protective of the environmental and human health of site users include physical stabilisation of soils. The use of clean, inert material will be undertaken for the landscaping and restoration.

Mitigation measures that will apply during the construction/landscaping period include:

- Standing water present in excavations will be pumped into the site drainage system (including attenuation ponds and wetland);
- The site wheelwash will be used throughout the Proposed Project;

- A designated refuelling area equipped with appropriate spill containment measures will be established in accordance with the EPA Licence. All plant refuelling activities will be confined to this area.
- All fuels, including diesel and fuel oils will be stored in bunded areas. Bunds will have a capacity of at least 110% of the largest storage tank, in compliance with the EPA Licence.
- Only emergency breakdown maintenance will be permitted on site to minimise the risk of environmental contamination.
- A concrete wash-down area will be constructed within the temporary site compound. All concrete delivery trucks must use this facility before leaving the site.
- Construction personnel will receive training on pollution incident control procedures as required by the EPA Licence.
- Portable sanitation facilities, such as portaloos or containerised toilets, will be provided as needed to supplement existing welfare facilities. Waste from these units will be removed from site by a licensed waste disposal contractor.

5.7 TRAFFIC MANAGEMENT

This Section of the CEMP is indicative of the Construction and Environment aspects that Traffic and Transport present and will be mitigated for as follows:

During the course of construction works on the subject site, due regard will be paid to minimising any impacts by construction vehicles on the surrounding area. Should a particular route or routes become an issue, then the position will be reviewed by the Project Team and changes made. Particular emphasis will be placed on:

- The issue of instructions and maps on getting to site to each supplier sub-contractor to avoid 'lost' construction traffic travelling on unapproved routes.
- Ongoing assessment of the most appropriate routes for construction traffic to and from the site.
- Interface with operation of local traffic.
- Use of banksman and / or traffic lights to control exit of construction vehicles.
- Controlled holding area for construction traffic from where deliveries will be called up as required.
- No construction traffic waiting on the public roads.

The above mitigation measures are subject to the findings of the EIAR on its completion.

5.8 WASTE MANAGEMENT

A Resource Waste Management Plan has been developed for the Proposed Project, see WSP report IE0037027.9697-R14.V0.

The contractor must implement the following measures to ensure effective resource and waste management throughout the construction phase:

- The contractor will develop, implement, and maintain a Construction and Demolition Waste Management Plan that includes, at a minimum:
    - A description of the Proposed Project;
    - Identification of expected waste types and procedures for minimisation, reuse, and recycling;
    - An estimate of waste management costs;
    - Defined roles, responsibilities, and training related to construction and demolition waste;
    - Procedures for workforce education and dissemination of the plan;

- Record-keeping protocols;
- Details of waste collectors, recycling and disposal facilities, including copies of relevant permits or licences; and
- Waste auditing procedures.

- The contractor will minimise waste disposal as far as is reasonably practicable;
- All waste will be transported by authorised waste collectors in accordance with the Waste Management (Collection Permit) Regulations 2007 to 2016, including the 2016 Amendment Regulations;
- Waste will be delivered to authorised facilities in line with the Waste Management Acts 1996–2011 and the relevant Collection Permit Regulations;
- Where feasible, recyclable materials such as metal from ESB pylon removal, timber, and glass must be segregated on-site and sent to licensed facilities. Colour-coded containers and photographic guides will be used to support effective segregation. This approach aims to maximise recycling and reduce landfill disposal, aligning with the waste hierarchy;
- The contractor will record the types and quantities (in tonnes) of waste and materials removed from the site during construction;
- Waste fuels and oils generated from on-site equipment, which may be classified as hazardous, will be securely stored in bunded areas and collected by appropriately licensed contractors;
- The potential for reusing clean, non-hazardous excavated material on-site (e.g., as fill or for landscaping) will be assessed through appropriate testing to confirm suitability;
- Where reuse on-site is not possible, the contractor will prioritise recovery or recycling of excavated material, where reasonably practicable;
- The contractor will maintain records of all facilities receiving waste, including names, addresses, authorisation details, and quantities delivered. Records must distinguish between recovered and disposed materials; and
- Any off-site interim storage or waste management facilities used for excavated material must hold the appropriate waste licences or facility permits.

6 INCIDENT PREPAREDNESS AND RESPONSE

Emergency incidents are those occurrences that give rise to significant negative environmental effects including but not limited to the following:

- Any malfunction of any mitigation measure and/or environmental protection system;
- Any emission that does not comply with the requirements of the contract and relevant licences;
- Any circumstance with the potential for environmental pollution; or
- Any emergency that may give rise to environmental effects (e.g. significant spillages or fire outbreak).

6.1 EMERGENCY RESPONSE

In the event of an incident the Construction Project Manager and Environmental Officer / Coordinator will be notified immediately. The Construction Project Manager will be responsible for identifying the appropriate responsible persons for coordinating the response procedure. Upon the commencement of the construction phase the Construction Manager will be responsible for defining a chain of command for situations where they may be unavailable to deal with an incident.

Emergency response procedures and an overall response plan will be devised by the Contractor in conjunction with their Construction Health and Safety Management Plan. The final procedures will be agreed and updated as a stand-alone and accessible document.

The Emergency Response Plan will address and cover the following key items:

- Roles and responsibilities;
- Initial emergency steps and notifications;
- Provisions for appropriate drills and scenario training for staff and sub-contractors, appropriate to the level of risk; and
- Emergency communication procedures.

6.2 EMERGENCY RESPONSE CONTACTS

A list of emergency contacts is presented in Table 5. A copy of these contacts will be included in the Construction Health and Safety Management Plan, and in appropriate locations throughout the Site, including site offices, noticeboards and the various site welfare facilities. Further details of appropriate contacts should be included by the Contractor in the table below: which may include:

- Spill clean-up contractors;
- Waste contractors; and
- Public and neighbouring business that could be affected.

Table 2: Emergency Contact

Contact	Telephone Number
Emergency services	999 / 112
Site Project Manager	087-2644112
Site Environmental Officer / Coordinator	086-1902770
Site Health and Safety Co-ordinator	086-1371702
Project Supervisor Construction Stage (PSCS)	086-3042904
Project Supervisor Design Stage (PSDP)	086-3042904

ESB Emergency Services	1850 372 999
Bord Gáis Emergency	1850 20 50 50
Irish Water Emergency	1850 278 278
Duleek Garda Station	041 982 3222
Meath County Offices	046 909 7000
MCC Environmental Health Officer	046 909 8729 046 909 8758
EPA	053 9160600
Health and Safety Authority	01 614 7000

6.3 INCIDENT MANAGEMENT

A major environmental incident is considered as an event which is a breach in legislation (including a breach of permit, consent or permission) that is causing serious environmental harm and is reportable to the regulator. For example:

- A major spillage of hazardous substance, resulting in an uncontrolled discharge entering controlled waters, a sewer or into permeable ground, resulting in serious damage to the environment.
- Serious breach of an environmental permit.
- Serious breach of planning permission.
- Significant air emissions
- Damage to habitat of a protected species, or the disturbance or causing the death of a protected species.
- Spread of invasive or injurious plant, outside of site boundary.
- Transferring waste offsite without a valid waste transfer note or consignment note.

A major incident may require the use of external resources for its control and containment and, potentially, the involvement of the emergency services.

Despite pro-active measures, including the availability of specific environmental procedures environmental method statements and risk assessments and the provision of training and supervision, environmental incidents may still occur. A formal strategy and procedures are in place, covering the response to any major environmental incidents. In the event of an environmental incident, an investigation as to the root cause will be implemented. The project emergency response plan will be tested at random on the site, but as a minimum, annually. Hazardous materials will be disposed of in accordance with Hazardous Waste Regulations, as described in more detail in the Resource Waste Management Plan.

6.3.1. POLLUTION CONTROL RESPONSE

Oil spill containment kits will be available on the site and key operatives trained in their use. Larger oil spill kits will be located at areas of higher risk, with these identified on the site layout drawing to be displayed on site (these areas will be subject to change as works progress and phases change). All contractors will carry spill kit materials in their cabins and mobile plant and machinery will be accompanied by a spill kit. Oil spill kit absorbents will be replaced or replenished after use and any used spill materials will be disposed of to the on-site waste management facilities. Every effort will be made to prevent pollution incidents associated with spills during the construction works. The risk

of oil/fuel spillages will exist on the site and any such incidents will require an emergency response procedure.

- The following steps provide the procedure to be followed in the event of an oil/fuel spill occurring on site:
- Identify and stop the source of the spill and alert people working in the vicinity;
- Notify the Environmental Advisor immediately giving information on the location, type and extent of the spill so that they can take appropriate action;
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident;
- Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill;
- If possible, cover or bund off any vulnerable areas where appropriate such as drains, watercourses and/or sensitive habitats;
- If possible, clean up as much as possible using the spill control materials;
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits;
- The Environmental Advisor shall inspect the site as soon as practicable and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring; and
- The Environmental Advisor will notify the appropriate stakeholders, including PBD, the Employer Representative, and if applicable, an Emergency Response Specialist, the Environmental Protection Agency, Meath County Council, Inland Fisheries Ireland, and National Parks and Wildlife Service (relevant due to the proximity to protected Special Areas of Conservation). Environmental incidents are not limited to just fuel spillages.

Any environmental incident must be reported, recorded and investigated in accordance with the procedures described in the ERP.

6.3.2. FIRE RESPONSE

If you discover a fire the following actions must be taken:

- Verbally notify any operatives in the immediate area and secure the area to prevent access by the public/unauthorised persons.
- Raise the alarm by sounding the air horn or continuously sounding the fire bell, contact the site office (by telephone or radio if at a remote location on the site giving the location of the fire)
- Evacuate the site using the nearest possible safe exit.
- DO NOT attempt to move any combustible or flammable materials from the affected area.
- DO NOT attempt to retrieve personal effects from the office/mess room.
- Stay at the muster point and await further instructions from site management or as directed by the emergency services.
- DO NOT attempt to re-enter the site until instructed to do so by the site manager or as directed by the emergency services.

EVACUATION PLAN

A plan of the site establishment will be created showing the designated escape routes to be used in the event of a fire at the site. The main muster/Assembly point on site will be clearly signed. In the event of an emergency evacuation all personnel must make their way to the muster/Assembly point

as quickly as possible using any of the safe evacuation routes identified on the evacuation plan map.

On being informed of an emergency the designated Fire Marshal (or identified second) will sound the alarm Air Horn or fire bells found around the site. They will then move immediately to the Muster/Assembly Point taking with them the roll call log. They will then attempt to ascertain the exact nature of the incident whilst ensuring that the emergency services have been notified. The roll call will be taken, and the location of any missing persons will be ascertained via mobile telephone/radios. At no time should the site be re-entered in the search for missing operatives. The Fire Marshal shall then inform the other work areas, and inform them of the need to cease work, leave their areas in a safe condition and join the rest of the project team at the Muster/Assembly Point. At no time should operatives be allowed to re-enter the site. The Fire Marshal shall be the primary point of contact with the emergency services and inform them of any missing operatives as well as handing them a copy of the emergency response plan containing the information regarding the location of flammable liquids/materials, combustible materials, gas cylinders etc. The Fire Marshall shall deploy personnel to guide the emergency services from the site entrance to the incident site.

6.3.3. FLOOD RESPONSE

In the event of any work site flooding – through adverse weather– the primary response of the Site Safety/Environmental Advisor is to ensure the safety of all operatives affected by the flood as well as to prevent any environmental incident through contamination.

Should flooding occur the EHS officer is responsible for the timely evacuation of the site. It is thought most likely that this could be anticipated and communicated without endangering the operatives working on site. Where this cannot be anticipated the EHS officer should ensure the site is left in a safe manner, minimising the risk of environmental contamination if possible as well as ensuring the safety of any affected operatives.

Where environmental contamination occurs, the site operatives will be instructed to deploy the spill kits stored on site to prevent, as far as is practicable, or minimise environmental contamination. If the incident cannot be contained by the resources on site, it will be the responsibility of the site management team to contact the relevant organisations as well as the necessary internal communications.

6.3.4. EXTREME WEATHER EVENTS

The effects of extreme weather events and related conditions during construction will be considered. Short to medium range weather forecasting service from Met Eireann or other approved meteorological data and weather forecast provider will be used to inform short to medium term programme management, environmental control and mitigation measures. A weather check will be done daily, and weather for the upcoming days will also be assessed at this time. Site management will be informed of any upcoming adverse weather conditions through internal forecast monitoring – (weather warnings, storms, prolonged wet weather, heavy rains). All measures deemed necessary and appropriate to manage extreme weather events will be taken, including training of personnel and prevention and monitoring arrangements for staff. As appropriate, method statements will also consider extreme weather events where risks have been identified.

7 RECORD KEEPING AND REPORTING

7.1 RECORDS TO BE MAINTAINED

The Environmental Officer / Coordinator will be accountable for overseeing the implementation of this CEMP and associated management plans and will be responsible for maintaining a register of monitoring, which will be made available for auditing and inspection.

An up-to-date copy of the CEMP will be maintained at the Site. Associated records will be held in the Contractor's files.

The Environmental Officer / Coordinator will be responsible for all record keeping of all environmental monitoring and compliance documentation. This will include:

- Relevant management plans;
- Weekly environmental inspection reports;
- Periodic environmental reporting, as required by the Landfill operator (and MCC, if required);
- All environmental monitoring data and consultant reports;
- Waste inventories; and
- Register of environmental complaints, and corrective action reports.

These documents will be made available to the Landfill operator (or their representative) and the relevant authorities if required.

7.2 REPORTING

The Contractor will be required to provide periodic reporting to the Landfill operator (or their representative). Monthly reporting will be carried out to provide a regular update on environmental performance and progress at the Site. This reporting will include:

- A summary of environmental non-conformance at the Site and compliance with the provisions of the CEMP;
- The interpretation of the results of any ongoing environmental monitoring;
- Records of environmental incidents and/or complaints, and details of corrective actions undertaken; and
- Records of environmental training carried out.

7.3 COMPLAINTS MANAGEMENT

The Environmental Officer/Coordinator is responsible for responding to complaints or queries from other stakeholders and must ensure that:

- All complaints are investigated and dealt with appropriately;
- Any corrective actions required are implemented;
- A record is made of all complaints, along with any response and/or actions taken; and
- The complaints record is periodically reviewed to identify any trends and appropriate corrective actions are taken.

The following information is recorded for all complaints received:

- Maintenance of a site complaints log detailing;
- Name and address of stakeholder;

- Stakeholder contact details (if required for follow up, as appropriate);
- Date, time and duration of noise, or other issues complained of;
- Complaint category type (e.g., noise, vibration, dust, waste, traffic);
- Likely cause or source of nuisance;
- Details of the complaint;
- Timing and duration of nuisance or pollution;
- Weather conditions, such as wind speed and direction, and;
- Additional information.

When investigating a complaint, the Environmental Officer is expected to confirm if the relevant mitigation measures detailed in this CEMP were implemented and, if not, ensure corrective action is taken.

7.4 CORRECTIVE ACTION

Where monitoring identifies an impact on the receiving environment, the Environmental Officer shall be notified immediately. The Environmental Officer will conduct an inspection of the location and the surrounds to identify the source of the impact and will review recent Site activities in that area.

If the source of the impact is identified as an emission from the Site, the Environmental Officer is responsible for undertaking corrective action to isolate and minimise the effects of the emission. If required, environmental monitoring may be required to determine the extent of the impact. The number and location of any monitoring points will be established in consultation with the monitoring personnel and noted on a site plan so that inspection of such monitoring points can be completed if required by external agencies.

The Environmental Officer is required to monitor implementation of any corrective actions to ensure that they are carried out and are effective.

Where the cause of emissions is identified to be the result of the design of the works, the Contractor and Landfill operator shall ensure that the design deficiencies are rectified to avoid recurrence.

8 AUDITING AND REVIEW

Audits of the CEMP will be undertaken by the Environmental Officer, with feedback provided to the Project Manager. The audit will check that all necessary current documentation is held in both electronic and hard copy as needed. Visual monitoring and complaints records will be audited to ensure that full records are kept, and all necessary information is recorded. An audit schedule will be arranged but will include an annual audit, as a minimum requirement. Audits may also be undertaken by the client representative.

To ensure the CEMP remains 'fit for purpose' for the duration of the project it will be regularly reviewed and updated to facilitate efficient and effective delivery of the project legal and environmental commitments, (See Section 10). A log will be kept including a summary of the update and a record of the review.

Reviews of the CEMP will be undertaken and recorded by the Environmental Officer with the findings of the reviews reported to the Project Manager and other staff members as required.

9 DISTRIBUTION

Copies of the CEMP will be retained by the Landfill operator and the Contractor. Additional copies will be distributed to those individuals defined in Table 1.

10 CEMP REVIEW AND VERSION UPDATES

As noted, this CEMP is a 'live' document, which shall be updated by the Landfill operator and the contractor as the project is progressed.

This CEMP will continue to be reviewed and updated by the Environmental Officer / Coordinator. Details of the review dates and version updates are provided in Table 3.

The CEMP will be updated to include:

- Relevant details including all appropriate conditions, mitigations measures, and monitoring requirements included in the EIAR and any other relevant documents. The Environmental Officer / Coordinator will ensure that Mitigation and Monitoring Measures have been updated accordingly.
- Appropriate environmental performance criteria and relevant compliance thresholds;
- A register of all applicable legislation and guidance, relevant to the Contractors management and methods; and
- The Contractors relevant procedures, method statements and work instructions.

Updates to the CEMP will be made no less than every 6 months during the construction phase, or when:

- There is an identified need to update to improve management or performance;
- There is an update in relevant legislation, guidelines or codes of practice; and
- A need has been identified in an incident or complaint.

Table 3: CEMP Review and Version Updates

Version	Review Date	Review Comments and Changes Made to CEMP	Date of Next Review

Town Centre House
Dublin Road
Naas
Co Kildare

wsp.com

PUBLIC