

KILLYCARD CLOSED LANDFILL REMEDIATION PROJECT

ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT

Prepared for:
Monaghan County Council



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Abstract: This report comprises an Environmental Impact Assessment Screening of the proposed remediation works at the Closed Landfill at Killicard, Co. Monaghan.

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1. INTRODUCTION AND BACKGROUND

Fehily Timoney and Company (FT) was engaged by Monaghan County Council to undertake an Environmental Impact Assessment (EIA) Screening Report in respect of the proposed Killycard Closed Landfill Remediation Works. From the outset, it is noted that Tier 1, Tier 2 and Tier 3 Environmental Risk Assessments have been carried out in accordance with the Environmental Protection Agency's (EPA's) Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal. Monaghan County Council subsequently applied for a Certificate of Authorisation (CoA) from the EPA and Certificate of Authorization Ref: H0364-01 was issued for the site on 19th March 2021 (Appendix 1).

The purpose of a Certificate of Authorisation is to specify control and remediation measures required at a closed landfill to ensure that waste disposed or recovered in the closed landfill is not causing, or is not likely to cause, environmental pollution. A Certificate of Authorisation is issued by the EPA to ensure compliance with the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008.

The CoA application was accompanied by a Stage 1 Appropriate Assessment Screening. The EPA, as the Competent Authority, screened in the site for appropriate assessment due to the site's conductivity with two European sites; on the Dundalk Bay Special Area of Conservation (SAC; site code: 000455) and Dundalk Bay Special Protection Area (SPA; site code: 004026).

More recently, complex issues have arisen in relation to how local authorities should approach planning and planning exemptions for closed landfill remediation works and the associated effect of screening for Appropriate Assessment (AA) on the process. In this regard, the Regional Waste Management Planning Offices (RWMPO) obtained legal advice in relation to such issues and concluded the following:

- Section 177AE of the Planning and Development Act 2000 (as amended) provides that where an Appropriate Assessment is required in respect of development to be carried out by a local authority then the local authority must apply to An Bord Pleanála for approval.
- In instances where the EPA has made a positive screening determination under regulation 42 of the Birds and Natural Habitats Regulations 2011, the local authority must make an application for development consent pursuant to Section 177AE of the PDA 2000.

In addition, the Regional Waste Management Planning Office (RWMPO) guidance document issued in November 2021 entitled '*Closed Landfill Remediation: Planning Procedures. A Guidance Note for Local Authorities*' states that the local authority must carry out a screening for EIA in accordance with Article 120 of the Planning and Development Regulations 2001 and where the remediation works are screened in for EIA, an EIAR must be prepared. Thus, having regard to the foregoing, FT has been engaged to assess whether the proposed remediation works would have a significant effect on the environment and therefore require a full Environmental Impact Assessment Report (EIAR).



1.1 Description of Existing Site

Killycard Closed Landfill is located in the townland of Killycard, approximately 1.7km to the northwest of Castleblayney town on the R183 Castleblayney to Ballybay Regional Road. It was previously reported by MCC that the landfill accepted waste from approximately 1980 to 1987. Since its closure the site has been covered with a soil cap, no other remediation works have been carried out. Waste deposited at the site is understood to comprise of municipal solid waste (MSW) to a maximum depth of 2.4m below ground level (BGL). The maximum waste footprint is approximately 1.34 hectares (ha). An interred volume of waste deposited at the site is estimated at approximately 29,700m³.

The closed landfill is located in a low-lying valley within a predominantly rural setting. The site is generally flat with a hill rising from the northern boundary of the site. The site is at an elevation of between 93m and 95m above Ordnance Datum (OD).

The site is bordered by Corrinshigo Lough to the west and by drains to the south and the north. The northern drain runs along the border of the Killycard townland and drains into the Drumillard Lough which is to the north-east of the site and at an in-stream distance of ca. 1.5km. Commercial developments have been constructed on site including mushroom grow houses (now derelict) and an operational industrial building in the eastern portion of the site. The land use in the area is primarily agricultural with the covered landfill area currently used for silage production. There are dwelling houses within 50m of the site boundary.

The site is located within the Newry, Fane, Glyde and Dee catchments and the sub-catchment of River Fane. The site is bounded to the southwest by the source stream for Corrinshigo Lough, to the west by Corrinshigo Lough and to the north by the lake outlet stream. Carrickaslane Lough stream and Devlin stream lie northeast of the site and are tributaries of the river Fane. The in-stream distance between the Killycard Closed Landfill and Dundalk Bay SAC is ca. 44.5km and to Dundalk Bay SPA is ca. 44km.

There are several small lakes located in the vicinity of the site. Drumillard Lough is located approximately 0.6km to the northeast of the site while an unnamed surface water area located approximately 0.5km to the east of the site. Killygola Lough and Lough Smiley are located approximately 1km northeast of the site.

Japanese knotweed (*Fallopia japonica*) is present along the western boundary of the closed landfill and /Corrinshigo Lough shore. An Invasive Species Management and Treatment Plan to address the required works for invasive species in the site has been developed and is included in the Construction Environmental Management Plan (CEMP). The CEMP is submitted as part of this application.

A Site Location Map drawing showing the site and its immediate environs is enclosed with this planning application (Drawing Reference: P21-071-0100-0001).

The Site Location is shown in Figure 1-1.



Legend

Site Boundary

TITLE: <div>Site Location</div>	
PROJECT: <div>Killicard Historic Landfill</div>	
FIGURE NO: <div>1-1</div>	
CLIENT: <div>Monaghan County Council</div>	
SCALE: <div>1:15000</div>	REVISION: <div>0</div>
DATE: <div>18/01/2023</div>	PAGE SIZE: <div>A3</div>

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1.2 Relevant Experience and Expertise of Assessor

Declan Morrissey was responsible for completing the EIA Screening Assessment. Declan is a Senior Environmental Scientist working as part of the Waste and Environment Team in Fehily Timoney and Company. Declan holds a B.Sc. Honours degree in Environmental Management from Dublin Institute of Technology and M.Sc. in Environmental Sciences from University of Ireland, Trinity College. Declan has twelve years' experience working in environmental assessment and management.

Declan is vastly experienced in project managing and coordinating Planning Applications, Environmental Impact Assessment Reports and Environmental Assessment. He also has a vast amount of experience assisting clients with Environmental/Permit/License Compliance.

Declan has a vast amount of experience coordinating and completing Environmental Impact Assessment Reports and EIA Screening Reports for a wide variety of development projects including landfill facilities, material recovery facilities, soil recovery facilities, quarries, and power generation facilities. Declan has a wide and thorough understanding of the various environmental factors that need to be considered during the EIA process and has an in-depth understanding of the legislation and up-to-date case law governing EIA practice in Ireland and the EU. Declan has an in-depth understanding of every stage of the EIA process from the Screening Stage to the Scoping Stage, up to the EIAR completion stage.



2. PROJECT DESCRIPTION

2.1 Project Description

2.1.1 Overview of Description of the Project

Monaghan County Council proposes to seek the approval of An Bord Pleanála for the completion of Closed Landfill Remediation Works at a Closed Landfill site in Killicard, County Monaghan.

The application site, as defined by the red line boundary in the accompanying drawings, is 2.25ha in size. The proposed capping area within the application site is 1.34ha in size.

The proposed development will consist of the following:

- The development of a site access.
- The development of a temporary site compound and office area for the duration of the works.
- Invasive species management.
- Site clearance, including the removal of an existing gate, existing timber post and wire fencing and clearance of existing vegetation.
- Grading/profiling of the existing site area.
- Installation of an engineered landfill capping system covering an area of 1.34 ha.
- Installation of surface and subsurface surface water drainage infrastructures.
- Installation of passive landfill gas management infrastructure.
- The installation of stock proof fencing, and a new access gate on-site.
- Landscaping of the final formation of the capping area using a high value multi species grass cover.

Post completion of the remediation works ongoing environmental monitoring and maintenance of the engineered cap and onsite drainage system will be required.

The works will take place in accordance with a Construction Environmental Management Plan (CEMP).

The construction period for the proposed development is estimated to be in the region of 5-7 months.

2.1.2 Purpose of/Rationale for the Project

Monaghan County Council is responsible for the remediation of Killicard Closed Landfill in accordance with a CoA for the site (Licence number: H0364-01).

The EPA issued a Certificate of Authorisation (CoA) for the site on the 19th of March 2021 (Licence number: H0364-01). Condition 3 of the CoA requires MCC to implement remediation works to this closed landfill in order to ensure “*..proper closure of the activity ensuring protection of the environment*”. The CoA is issued under Regulation 7 (6) of the Waste Management (Certificate of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008. The purpose of the proposed remediation works is to implement CoA Condition 3.



2.1.3 Construction Phase

The remediation works will include:

- The development of a site access.
- The development of a temporary site compound and office area for the duration of the works.
- Invasive species management.
- Site clearance, including the removal of an existing gate, existing timber post and wire fencing and clearance of existing vegetation.
- Grading/profiling of the existing site area.
- Installation of an engineered landfill capping system covering an area of 1.34 ha.
- Installation of surface and subsurface surface water drainage infrastructures.
- Installation of passive landfill gas management infrastructure.
- The installation of stock proof fencing, and a new access gate on-site.
- Landscaping of the final formation of the capping area using a high value multi species grass cover.

Post completion of the remediation works ongoing environmental monitoring and maintenance of the engineered cap and onsite drainage system will be required.

The works will take place in accordance with a Construction Environmental Management Plan (CEMP).

The construction period for the proposed development is estimated to be in the region of 5-7 months.

The hours of construction activity will be between 07:00 to 19:00 Monday to Saturday inclusive. Work on Sundays or public holidays will only be conducted in exceptional circumstances.

2.1.3.1 *Development of a Site Access*

Access to the closed landfill site shall be via the R183. The Contractor will be required to implement a traffic management plan to manage safe access and egress of construction vehicles from the site.

The Proposed Traffic Management Plan is shown in a drawing enclosed with this planning application. See Drawing Reference: P22-071-0100-0007.

2.1.3.2 *Development of Temporary Site Compound and Office Area*

The temporary site compound shall comprise a materials storage area, site offices and a parking area. Material storage compound, parking area and site offices in the form of portacabins and site canteen/welfare facilities (Contractor and Employers Representatives) will be provided to the south-east of the site, outside the footprint of the capping area. The temporary site compound shall be mobilised within the existing concrete yard area.

Access to the compound shall be via the existing access to the site off the R183.

Waste from the welfare facilities (i.e., Portaloo(s)) will be stored temporarily prior to disposal at a licensed wastewater treatment plant.



Mobile on-demand fuelling will be utilised for refuelling plant. Mobile refuelling vehicles will be equipped with spill pads and spill kits.

Generators will be used on-site for power supply during the temporary works. Water will be provided via water tankers.

Periodic road sweeping will be required when necessary.

2.1.3.3 Invasive Species Management

Invasive species have been identified at the site and management will form part of the works. The full extent of invasive species rhizomal growth including potential vector material will be removed and encapsulated in a dedicated geocomposite lined invasive species management cell. Upon completion of the excavation works the lined cell will be buried with a minimum 2.0m cover within a dedicated “fill” location within the waste body prior to placing the engineered cap.

Respective areas where invasive species are present will be isolated and have appropriate signage following the completion of the proposed works.

The Proposed Location for the Japanese Knotweed Burial is shown in a drawing enclosed with this planning application. See Drawing Reference: P22-071-0100-0008.

2.1.3.4 Site Clearance

Following completion of the invasive species management, vegetation on site will be cut back, mulched and re-spread on-site. Any vegetation left will be dispatched to an authorised waste facility for management.

A Site Clearance Plan enclosed with this application shows the areas of grass that will be cleared from the site. See Drawing Reference: P22-071-0100-0004.

2.1.3.5 Grading/Profiling of Existing Profile

The existing waste body was covered following cessation of waste filling with an intermediate soil cap.

The existing finished surface will require re-profiling to facilitate:

- Surface and sub surface drainage.
- Safe execution of the site remediation works.
- Safe access for maintenance of the cap.

Re-profiling will principally involve the (shallow) cutting of material at local high spots. These “cut” materials will be used as “fill” in local depressions. All cut and fill works will be carried out within the site boundary.

Thereafter imported granular “dust” material 50mm to 100mm thick will be used to provide formation for the engineered cap. The re-profiled surface will provide the foundation for the engineered landfill cap. See Drawing Reference: P22-071-0300-0001.



2.1.3.6 Installation of Engineered Landfill Capping System

The engineered landfill cap “barrier” system will:

- Cover an area of approximately 13,400m² (1.34ha)
- Isolate the waste body from rainfall inputs which might otherwise produce leachate. This will protect underlying groundwater and adjacent surface waters.
- Minimise the potential for uncontrolled landfill gas migration to the atmosphere or adjacent lands.
- Provide a physical barrier between the finished surface and buried wastes.
- Facilitate controlled discharge of surface water runoff and sub surface drainage flows into the receiving surface waters.

The cap shall comprise of the following:

- Vertical wells.
- A passive below liner landfill gas venting system.
- A LLDPE barrier to isolate the waste body from rainfall inputs and prevent uncontrolled fugitive gas emissions from the waste body.
- Over liner gas management system.
- A subsurface drainage system.
- A surface drainage system.
- A subsoil layer average thickness 800-850 mm.
- A topsoil layer average thickness 150-200 mm barrier.

The Proposed Landfill Capping Area is shown in a drawing enclosed with this planning application. See Drawing Reference: P22-071-0300-0002.

Below Liner Landfill Gas System

Currently any landfill gas as may be present vents gas to atmosphere via diffuse surface emissions. Once the LLDPE barrier is installed this preferential pathway to atmosphere will be isolated.

Below the LLDPE barrier a gas collection geocomposite and pipework system will be constructed to collect and direct landfill gas as may be present to the proposed passive ventilation system.

The below liner gas collection geocomposite is a cusped synthetic product that is rolled out above the granular “dust” material overlying the re-profiled intermediate cap which overlies the waste. The gas collection geocomposite forms a “cavity” to intercept gas emissions from the underlying body.

Gas collection pipework will be slotted and laid in gravel surround below the gas collection geocomposite and it will facilitate collection of landfill gas; and soakage, if required, of condensate or other as may collect in pipework.

The Proposed Under Liner Gas Collection System has been enclosed with this planning application (Drawing Reference: P22-071-0700-0001).



LLDPE Barrier

The LLDPE barrier will be a 1.0 mm thick “plastic” sheet that is impermeable to both water and gas. It prevents gas escaping into the overlying soils and stops water from rainfall entering the underlying waste body.

The LLDPE sheets will be welded at joints and will terminate in a vertical cut-off trench about the perimeter of the site.

Subsurface Drainage

The over liner sub surface drainage collection geocomposite is a cusped synthetic product that is rolled out above the LLDPE barrier. It forms a “cavity” to intercept rainfall inputs into the cap. Subsurface drainage flows from the drainage geocomposite are transferred via a supporting pipework system to a surface drainage outfall manhole and outlet at Corrinshigo Lough.

Drawings showing the proposed surface and subsurface drainage system is enclosed with this planning application. See Drawing Reference: P22-071-0500-0001, P22-071-0500-0002 and P22-071-0500-0003.

Surface Drainage

French drains around the capping perimeter will collect and direct surface water flows to the subsurface drainage network ultimately outfalling at the same location. French drains will be provided with HDPE SDR 17 slotted pipes.

A drawing showing the proposed surface and subsurface drainage system is enclosed with this planning application. See Drawing Reference: P22-071-0500-0001.

Subsoil Layer

Suitably sourced subsoils will then be imported to the site and placed atop of the sub surface drainage geocomposite and /or geogrid on side slopes. The subsoil layer will generally be 800-850mm deep.

The purpose of the subsoil layer will be to protect the synthetic geocomposite materials and to support landscaping.

Topsoil Layer

Suitable sourced topsoil will be placed atop the subsoil. The topsoil will have no stones greater than 50mm diameter. Stones greater than 50mm will be removed by a proprietary stone picker or similar prior to seeding.

The topsoil layer will be 150-200 mm deep.

Recovered stones will be reused on site as fill to sub surface drains.

2.1.3.7 Temporary Works

Leachate Management

Storage tanks will be provided for the safe storage of any leachate arisings during the construction works. Leachate arising during construction works will be disposed at a licensed wastewater treatment plant.



Daily Cover of Exposed Waste

In the unlikely event that waste is exposed it will be covered with soil or similar approved at the close of each working day.

Suspended Solid Management

Suspended solids will be prevented from entering watercourses by installing silt fences around the site perimeter and around stockpiles.

Odour Management

Odour management is not expected to be an issue due to the age of the interred waste is older than 25 years. The proposed works have been designed to reduce the risk of exposing waste.

In the event that it is exposed, waste will be covered up at the end of each working day.

Traffic Management

The Contractor will be required to implement a traffic management plan to manage safe access and egress of construction vehicles from the site. The Proposed Draft Traffic Management Plan is shown in a drawing enclosed with this planning application. See Drawing Reference: P22-071-0100-0007.

Stock Proof Fencing

Clearance of shrub on the perimeter will result in damage to existing stock proof fencing. Following placement of the cap a replacement perimeter stock proof fence 1.3m high will be installed around the landfill footprint.

The existing access gate to the site will be replaced. Redundant fences and gates will be transported and disposed of offsite in a licenced facility.

2.1.3.8 Permanent Works: Management and Monitoring Infrastructure

Installation of Passive Landfill Gas Management Infrastructure

The development will include the installation of a landfill gas ventilation trench along the entire eastern boundary of the site. The ventilation trench will mitigate the risk of landfill gas migration to the neighbouring commercial properties. The ventilation trench will be constructed by excavating a trench to the depth of the waste body and backfilling with rounded drainage stone. Vertical standpipes will be installed at 20m centres along the trench to provide a pathway for landfill gas to vent to the atmosphere. The standpipes shall be fitted with rotating stainless-steel cowls and a carbon filter pack. The rotation of the cowls (by wind power) will induce a negative pressure or suction within the pipe network aiding ventilation. The carbon filter pack will neutralise any potential odours prior to exhaust to atmosphere.

See Drawing Reference: P22-071-0700-000 for proposed location and details.

Installation of Additional Environmental Monitoring Infrastructure

The following additional monitoring infrastructure will be installed as part of the development:

- Perimeter Landfill Gas Migration Monitoring Boreholes.
- Continuous Emissions Monitoring Infrastructure.
- Additional Groundwater Monitoring Locations.



- Additional Leachate Monitoring Locations.

Seven new perimeter landfill gas monitoring boreholes (LFGM1 – LFGM7) shall be installed at maximum 50m centres maximum along the eastern edge of the capping boundary and southern site boundary. The monitoring points shall be installed to detect the presence of otherwise of migrating landfill gas.

Continuous gas monitoring infrastructure shall be installed within the two commercial buildings to the east of the capping boundary. The monitoring infrastructure will consist of a small wall mounted control panel and a number of isolated continuous gas monitoring sensors.

Three additional groundwater monitoring (GW04 – GW06) will be installed to monitor groundwater. Three existing wells (GW01 – GW03) as are present within the waste footprint will be retained and incorporated into the cap to support future environmental monitoring as may be required by the EPA.

Arisings from all borehole installations will be managed on site below the LLDPE barrier and gas collection geocomposite.

Monitoring wells will have a chamber and a cover atop the wells at the same elevation as the surrounding ground. The wells will have monitoring ports to support monitoring of landfill gas quality and or groundwater quality as may be required.

A drawing showing all existing and proposed monitoring wells locations is enclosed with this planning application, see Drawing Reference: P22-071-0100-0005.

Grass Cover/Landscaping for Pasture

Post capping and placement of the subsoils and topsoil layers it is proposed to landscape the site using a high value multi species grass cover. Grass is used to prevent erosion of the soils and to provide an attractive final visual appearance for the site.

2.1.4 Operational/Post Construction Phase

The Operational/Post Construction works will include:

- Ongoing environmental monitoring.
- Ongoing maintenance of engineered cap and drainage systems on-site.
- Ongoing management of landfill gas.

2.1.4.1 Environmental Monitoring

Monitoring staff will be required to access installed infrastructure (wells and surface water monitoring locations) to take samples and/or monitor gas quality during the aftercare period post construction.

2.1.4.2 Maintenance of Cap, Passive Landfill Gas Management Infrastructure and Surface Drainage

The grass cover will require maintenance. This may be provided either by light animal grazing and/or by mowing. Fertiliser supplements may also be required periodically during the aftercare period subject to stocking density.



Landfill gas ventilation pipes may require periodic inspection and replacement of carbon filter media for the control of odours.

Sub surface drainage pipes may require periodic inspection and jetting of pipes if they become compromised with roots or silt.

2.1.4.3 *Management of Landfill Gas*

Post completion of the works and installation of the proposed landfill gas management infrastructure, there will be an on-going requirement to:

- Monitor landfill gas within and external to the facility at dedicated periodic and continuous monitoring locations.



3. EIA SCREENING

3.1 EIA Project Types

The European Union Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment, requires member states to ensure that a competent authority carries out an assessment of the environmental impacts of certain types of project, as listed in the Directive, prior to development consent being given for the project.

The EIA Directive requires that, *“in order to ensure a high level of protection of the environment and human health, screening procedures and EIA assessments should take account of the impact of the whole project in question, including where relevant, its subsurface and underground, during the construction, operational and, where relevant demolition phases”*.

The Requirement for the EIA of various types of development are transposed into Irish legislation under the Planning and Development Act and the Planning and Development (Amendment) Regulations 2001-2022. Schedule 5, Part 1 of the Planning Regulations includes a list of projects which are subject to an EIA based on their type. Part 2 of the same schedule includes a list of projects which by reason of scale also fall into the EIA category, for example, wind farms with more than 5 no. turbines, or having a total output greater than 5 megawatts, or waste handling facilities that handle more than 25,000 tonnes of waste per annum all fall into Part 2. Schedule 5 also includes a section on extensions or changes to developments for example, any change or extension to existing projects which would result in the development being of a class listed in Schedule 5 or result in an increase in size greater than 25% or 50% of the appropriate thresholds would fall into Schedule 5 and thus require an EIA.

The EIA criteria above are quite clear and prescriptive however in addition to the above, Schedule 5 also includes a section relating to ‘sub threshold’ (discretionary) EIA. This is where any project listed in Schedule 5 Part 2 which does not exceed a quantity, area or other limit specified in respect of the relevant class of development (e.g., waste facility handling 20,000 tonnes per year or two turbines having an output less than 5 megawatts) should be subject to an EIA where the project would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7 of the Regulations.

The proposed development does not fall into a class of development set out in Schedule 5, Part 1 and therefore an EIA is not mandatory. The relevant classes of development from Schedule 5, Part 2 are as follows:

- 11(b): *‘Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule’*.
- 15: *‘Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.’*

As part of the proposed remediation works, the site will not accept waste, thus the development cannot be regarded as a development falling within Class 11(b) of Part 2 of Schedule 5 of the Planning and Development Regulations 2001.



In the circumstances, although a mandatory EIA is not triggered for the proposed project, an assessment of the likelihood of the proposed works to have a significant effect on the environment having regard to the criteria set out in Schedule 7 will be undertaken. If it is likely that the project will have a significant effect on the environment having regard to the criteria set out hereunder, an EIA will be required.

The EPA 2022 *Guidelines on Information to be contained in Environmental Impact Assessment Reports* notes that even where a proposed project is not a type that is included in the statutory EIA project list, the determination of sub-threshold EIA Screening is an increasingly complex issue and should not be decided on without full consideration of the 2014 EIA Directives 'wide scope and broad purpose', as set out in the EU Documents of Interpretation of definitions of project categories of Annex I and Annex II of the EIA Directive 2008.

3.2 Sub-Threshold EIA Screening

This section of the report screens the project in the context of the criteria set out in Schedule 7 and Annex III of the EIA Directive. The screening demonstrates that there will be no significant impacts associated with the proposed development on the receiving environment in isolation or cumulatively with other projects or proposals in the area. This EIA Screening considers the 'whole project' including all secondary ancillary/subsidiary elements essential to the construction and maintenance of the remediation works.

Annex III of the EIA Directive details the criteria to be used to determine whether a project should be subject to EIA and Schedule 7 of the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 implements this Directive in Ireland.

These criteria are as follows:

1. Characteristics of the proposed development

The characteristics of proposed development, in particular:

- *The size and design of the whole of the proposed development*
- *Cumulation with other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment.*
- *The nature of any associated demolition works*
- *The use of natural resources in particular land, soil, water and biodiversity.*
- *The production of waste.*
- *Pollution and nuisances.*
- *The risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge; and*
- *The risks to human health (for example due to water contamination or air pollution).*



2. Location of Projects

The environmental sensitivity of geographical areas likely to be affected by proposed development, having regard to:

- *The existing and approved land use.*
- *The relative abundance, quality and regeneration capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground.*
- *The absorption capacity of the natural environment, paying particular attention to the following area:*
 - *Wetlands, riparian areas, river mouths.*
 - *Coastal zones and marine environment.*
 - *Mountain and forest area.*
 - *Nature reserves and parks.*
 - *Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive.*
 - *Areas in which there has already been a failure to meet the environmental quality standards, laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure.*
 - *Densely populated areas.*
 - *Landscapes and sites of historical, cultural, or archaeological significance.*

3. Characteristics of potential impacts

The potential significant effects on the environments of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in the definition of 'environmental impact assessment report' and taking into account-

- *The magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected).*
- *The nature of the impact.*
- *The transboundary nature of the impact.*
- *The intensity and complexity of the impact.*
- *The probability of the impact.*
- *The expected onset, duration, frequency and reversibility of the impact.*
- *The cumulation of the impact with the impact of other existing and/or approved projects.*
- *The possibility of effectively reducing the impact.*

This assessment utilises the Screening Checklist as detailed in the European Commission Guidance on EIA Screening, June 2001, to screen the proposed development with regard to EIA requirements and this checklist encompasses the details required under Annex III of the EIA Directive and in Schedule 7 of the 2018 EIA Regulations – refer to Table 3.1. Any potential impacts are then assessed with regard to their characteristics.



In completing this screening assessment regard has also been had to EIA Screening Guidelines contained in the Office of the Planning Regulator's Practice Note PN02 Environmental Impact Assessment Screening.



Table 3-1: EIA Screening Checklist

Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
1. Will construction, operation, decommissioning, or demolition works of the Project involve actions that will cause physical changes in the locality (topography, land use, changes in waterbodies, etc.)?	<p>There will be minor excavations as part of the proposed remediation works. Included as part of the works, is the re-profiling of the existing land surface and the provision of a subsoil and topsoil layer.</p> <p>Site clearance works will be undertaken as part of the proposed development. This will involve the removal of ground vegetation and boundary fencing.</p> <p>As part of the site clearance works, invasive species will be excavated and buried on site within the extent of the engineered cap to prevent any further spread.</p>	<p>No, due to the small scale and temporary nature of proposed excavations. The works area will be reinstated upon completion of the works. All cut materials will be used as fill in local depressions and all cut and fill works will be carried out within the site boundary.</p> <p>Site clearance works will be undertaken as part of the proposed development. Site clearance works will however be relatively minor in scale (involving only ground clearance and the removal of site fences). These works will not have a significant impact on any environmental receptor given their minor and time limited nature and given that the site clearance and construction works, as a whole will be carried out in accordance with a Construction Environmental Management Plan (CEMP).</p> <p>An invasive species management plan is in place for the ongoing treatment of the identified invasive species on site.</p>
2. Will construction or the operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or are in short supply?	<p>Natural resources will be used in the form of materials for construction including granular dust material for the cap, sub-soils, top-soils, geocomposite material, HDPE pipework, and LLDPE material. Diesel fuel will also be used to power the on-site generator and mobile plant to be utilized during remediation works.</p>	<p>The proposed development will not involve the use of significant levels of natural resources such as construction materials or energy. The proposed development is not likely to result in a significant impact in this regard and is in line with existing and established trends in terms of carrying out remediation works on closed landfill sites as that to which this report pertains.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
		Soils excavated from on-site will be used for infilling / grading (i.e. cut and fill techniques will be utilized). The remaining soils required as part of the engineered cap will be imported to site.
3. Will the Project involve the use, storage, transport, handling or production of substances or materials which could be harmful to human health, to the environment or raise concerns about actual or perceived risks to human health?	<p>The project is concerned with the remediation of a closed landfill. Materials associated with the project which create potential hazards include buried wastes, unknown waste, made ground, landfill gas and leachate. Whilst no extensive excavations of waste materials are proposed, contact with possible waste materials cannot be completely eliminated.</p> <p>Fuel will be delivered to site as necessary during the proposed works. Re-fuelling will be undertaken in a designated re-fuelling area within the proposed site compound. Potential exists for an accidental fuel leak or spill resulting in the occurrence of environmental pollution.</p>	<p>No, this is not likely to result in significant impacts on human health or the environment. The proposed remediation works will be undertaken in accordance with Health and Safety standards and legislation/regulations. A comprehensive Safety and Health Management Plan will be adopted and adhered to by the Contractor to ensure minimal risk in terms of human health and the environment.</p> <p>During the proposed remediation works on site there is a risk for siltation to occur. To mitigate against this occurrence, protection measures (siltation fencing) will be placed around stockpiles of imported material over the course of the work as defined in the CEMP.</p> <p>It is not likely that fuels on-site will be released to and have an effect on the environment given control measures in place to prevent such loss of containment and discharges, as defined in the CEMP for the proposed works.</p> <p>The proposed remediation works will be undertaken in accordance with the terms and conditions of the EPA Certificate of Authorization (Ref: H0364-01) for Landfill Closure relating to environmental protection and site remediation. No significant environmental impacts will occur as a result of this.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
4. Will the Project produce solid wastes during construction or operation or decommissioning?	<p>There will be minor waste material generated as a consequence of the site clearance works undertaken on-site.</p> <p>Japanese Knotweed was identified on site as an invasive species. As part of the site clearance works, this invasive species will be excavated and buried on site with the extent of the engineered cap to prevent any further spread.</p>	<p>No. The waste will be removed by a licenced waste operator and disposed of at a licensed facility. It is noted that no significant levels of solid waste will be produced during the operation or decommissioning. All excavated soils will be utilised on-site during grading/profiling works.</p> <p>An invasive species management plan is in place for the ongoing treatment of the identified invasive species on site. All invasive species will be buried with a minimum 2.0m cover within a dedicated "fill" location within the waste body prior to placing the engineered cap, thereby preventing its spread.</p>
5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air or lead to exceeding Ambient Air Quality standards in Directives 2008/50/EC and 2004/107/EC?	<p>Construction machinery will likely cause release of pollutants in the form of exhaust emissions. Similarly, vehicular transport associated with the facility will cause exhaust emissions.</p> <p>As a result of natural biodegradation of waste which was deposited in the landfill during operation, gases have formed. As part of the remediation works, an LLDPE barrier will be installed, above and below which a gas collection geocomposite and pipework system will be constructed to collect and direct landfill gas that may be present to controlled venting outlets. The venting outlets will allow venting and/or oxidation of landfill gas that may be present to the atmosphere.</p>	<p>No likely significant impact. Vehicular transport associated with the construction and operational phases of the facility produces negligible impact to air quality given the scale of the construction phase and anticipated traffic levels. Materials generated during works on-site will be reutilised on-site thereby minimizing traffic associated with the proposed development.</p> <p>Whilst there will be some emissions released from the site given its previous use (i.e., landfill gas), it is noted that the proposed remediation works will ultimately have a positive impact on air quality within the surrounding area following construction of the engineered cap. The design of the engineered cap will facilitate the controlled venting of gas to the atmosphere.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
6. Will the Project cause noise and vibration or the releasing of light, heat energy or electromagnetic radiation?	During construction noise emissions will occur from construction plant.	No. Noise emissions during construction will be temporary and it is unlikely that the EPA prescribed noise limits will be exceeded. A CEMP will be prepared to mitigate noise emissions during construction.
7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	<p>Existing and proposed wells within and external to the landfill footprint will be used to monitor gas and groundwater qualities. The EPA will require regular monitoring of landfill gas quality.</p> <p>Ongoing surface water discharge monitoring is proposed to ensure that no polluting surface water discharges are released from the site.</p> <p>The proposed LLDPE barrier will provide an engineered barrier that will isolate the waste body from rainfall inputs and prevent leachate production that might otherwise contaminate groundwater.</p>	<p>No. The proposed works relate to enhanced remediation.</p> <p>Following remediation works, leachate will continue to be produced and enter groundwater for a time. However, remediation works will prevent rainwater from infiltrating the interred waste body therefore reducing the potential for leachate to be produced in the short term and ultimately preventing leachate production.</p> <p>The proposed remediation works will ultimately have a positive impact on water quality within the river network downstream because leachate generation will reduce following construction of the engineered cap.</p>
8. Will there be any risk of accidents during construction or operation of the Project that could affect human health or the environment?	The works will be conducted safely and in accordance with the Safety, Health and Welfare at Work Act and associated Regulations.	<p>No. There is a low risk of accidents during the construction and operation of the Project. A Health and Safety Plan will be developed to prevent health and safety impacts.</p> <p>An Environmental Management System and an Emergency Response Procedure will be in place to prevent the occurrence of accidents which may affect environmental receptors.</p>
9. Will the Project result in environmentally related social changes, for example, in demography, traditional lifestyles, employment?	No, there will be no generation of employment as a result of the Project once operational.	The project will not have a significant impact on demography, lifestyles or employment.



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
10. Are there any other factors that should be considered such as consequential development which could lead to environmental impacts or the potential for cumulative impacts with other existing or planned activities in the locality?	<p>Following the completion of the remediation works, the site will be used for agricultural grazing purposes.</p> <p>There is an operational industrial building on the eastern portion of the site, but no remediation works are required at this building.</p>	<p>The carrying out of the remediation works are not likely to have a significant effect on the environment when the projects are considered cumulatively. The remediation works will be subject to environmental control and mitigation measures to ensure that there will be no adverse environmental effects associated with them.</p> <p>The carrying out of the remedial works will not lead to any significant cumulative effects, given the lack of interacting and combining effects between the two projects. The construction phases of both projects will not overlap (the industrial building is constructed and operating, and the landfill remediation works has not yet commenced). Operational/Post Construction Works and maintenance activities at the landfill are limited in magnitude will not result in any significant environmental effect that may combine with effects generated by solar farm construction or operation.</p>
11. Is the Project located within or close to any areas which are protected under international, EU or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the Project?	<p>There are no international, EU or nationally designated areas in the immediate vicinity of the Project.</p> <p>There is a hydrological connection between the subject site and two of the European Sites (Dundalk Bay SAC and Dundalk Bay SPA) which are located approximately 45km downstream.</p>	<p>The Natura Impact Statement which accompanies this report, concludes beyond reasonable scientific doubt that there is no potential for adverse effects on the integrity of any European site identified with the adoption of the proposed mitigation measures.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
12. Are there any other areas on or around the location that are important or sensitive for reasons of their ecology e.g., wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, that could be affected by the Project?	There are no habitats within the subject site that conform to those listed under Annex I of the EU Habitats Directive.	No. There are no habitats within the study area that conform to those listed under Annex I of the EU Habitats Directive.
13. Are there any areas on or around the location that are used by protected, important or sensitive species of fauna or flora e.g., for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the Project?	<p>Dundalk Bay SAC and Dundalk Bay SPA are located approximately 45km downstream of the closed landfill.</p> <p>The conservation objective of which is to maintain or restore the favourable conservation condition of the Annex I habitats and Annex II species for which the SAC/SPA has been selected.</p>	Whilst it has been acknowledged that there could be potential for the proposed closed landfill remediation works to have significant effects on Dundalk Bay SAC and Dundalk Bay SPA, with the implementation of the detailed mitigation measures identified in the NIS and set out in Condition 3 of the certification of authorisation, it is concluded beyond reasonable scientific doubt that the integrity of Dundalk Bay SAC and Dundalk Bay SPA will not be adversely affected.
14. Are there any inland, coastal, marine or underground waters (or features of the marine environment) on or around the location that could be affected by the Project?	<p>The site is bounded to the southwest by the source stream for Corrinshigo Lough, to the west by Corrinshigo Lough and to the north by the lake outlet stream. Carrickaslane Lough stream and Devlin stream lie northeast of the site and are tributaries of the river Fane.</p> <p>At present and prior to the initiation of remediation works, leachate could percolate to groundwater and surface waters.</p> <p>The proposed remediation works will prevent rainwater from infiltrating the interred waste body, therefore reducing the potential for leachate to be produced.</p>	<p>No. Post construction the LLDPE barrier will provide an engineered barrier that will isolate waste body from rainfall inputs and prevent leachate production that might otherwise contaminate groundwater.</p> <p>The proposed remediation works will have a positive impact on water quality within the river network downstream because leachate generation will reduce following construction of the engineered cap.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the Project?	<p>The Landscape section of the 2019-2025 County Development Plan and 2008 Landscape Character Assessment of the County (most recent version) characterised the site as 'drumlin foothills'. This area is defined as rising ground with small to medium sized drumlins predominantly in a north to south orientation with mid to long ranging views.</p> <p>Having regard to the above it is noted that there are no features of high landscape or scenic value that could be affected, and the works are restricted in nature.</p>	<p>No, the relatively small scale of the development and lack of landscape/visual sensitivities in the study area will mean that it is unlikely to have a significant impact on the landscape. In addition, on-site works will be temporary in nature and only give rise to temporary landscape of visual impacts. All excavation works will be fully reinstated.</p> <p>Notwithstanding the above, it is noted that the proposed remediation works will significantly improve the visual amenity of the immediately surrounding area given the ground clearance and the more aesthetically appealing site grading/profiling and landscaping that will be carried out as part of the development.</p>
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the Project?	<p>Corrinshigo Lough, which is used for recreational fishing is located directly west of the subject site. Environmental control and mitigation measures will be in place during the construction and operational phases of the proposed development to ensure the Lough will not be affected by the proposed works.</p> <p>Lough Muckno Lake Loop Walk and Castleblaney Outdoor Adventure Centre are located in the surrounding area of Castleblaney to the south-east of the subject site. Due to the distance of these facilities from the subject site and visual screening present, there is no potential for the remediation works to adversely impact the amenity value associated with these sites.</p>	<p>There are no likely significant impacts anticipated in this regard.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
17. Are there any transport routes on or around the location that are susceptible to congestion or which cause environmental problems, which could be affected by the Project?	The proposed project will not affect transportation routes. Additional traffic will be generated on the surrounding road network during the construction phase; however this is of a minor and limited scale.	No likely significant effects due to limited number of HGVs/LGVs required and the time limited nature of the works. Material generated during earthworks on-site will be reutilised on-site thereby substantially reducing traffic movements associated with the construction phase of the project. Waste soil outputs will not need to be exported to the site. Traffic movements to the site will also take place in accordance with a Construction Traffic Management Plan.
18. Is the Project in a location in which it is likely to be highly visible to many people?	The temporary construction works may be visible from the surrounding network at isolated locations along the R183, however, existing site is separated from nearby residential properties by the R183 Road, mature tree lining and hedgerows which aid in the visual screening of the site.	There will be no significant visual impacts given the scale and nature of the works, their temporary nature and the visual screening (i.e. R183, mature tree lining and hedgerows) surrounding the site. Notwithstanding this, the proposed remediation works will significantly improve the visual amenity of the immediately surrounding area given the ground clearance and the more aesthetically appealing site grading/profiling and landscaping that will be carried out as part of the development.
19. Are there any areas or features of closed or cultural importance on or around the location that could be affected by the Project?	<p>There were no entries on the Record of Monuments and Places located within the subject site boundary. However, a ringfort (MO020-014) and souterrain (MO020-014001) are located approximately 210m north of the subject site. There were no other entries on the Record of Monuments and Places located within 500m of the site.</p> <p>There were no structures listed on the Monaghan County Development Plan (2019 - 2025) 'Record of Protected Structures' located within a 500m distance of the subject site.</p>	<p>As there are no closed or cultural important features present on site, there are no likely significant impacts anticipated in this regard.</p> <p>The subject development is an appropriate distance from the remaining existing listed monuments as to not interfere with the amenity and setting of the listed sites.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
	<p>Following a review of the available datasets and consulted sources, there is no evidence of potential unrecorded archaeological features within the proposed work areas.</p> <p>Although ground excavation will be required during the proposed works, given the previous disturbance associated with the landfill facility, combined with the low archaeological potential of the proposed work location, the potential for impacts occurring to any unrecorded archaeological artefacts, features or deposits as a result of the proposed works is considered to be very low.</p>	
20. Is the Project located in a previously undeveloped area where there will be a loss of greenfield land?	There will be no loss of greenfield land as a result of the proposed project. The site is a closed landfill.	No, there will be no permanent loss of greenfield land.
21. Are there existing land uses within or around the location e.g., homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying that could be affected by the Project?	Existing land uses around the works areas are commercial units, agricultural fields and residential properties. The Corrinshigo Lough, located adjacent to the west of the site is also used for recreational fishing.	<p>Existing land uses will not be affected by the proposed works given the environmental control and mitigation measures that will be in place during the construction and operational phases of the proposed development.</p> <p>In addition, given the proximity of certain sensitive land uses to the site (e.g., housing) measures have been defined for controlling polluting aqueous emissions, dust, noise and traffic.</p>
22. Are there any plans for future land uses within or around the location that could be affected by the Project?	There are no known plans for future land uses within or around the location.	The proposed development will not have a significant effect on any future development of the surrounding land, given the limited nature and scale of the proposed remediation works. The proposed remediation works will also significantly improve the appearance and functioning of the existing site.



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
		Additional mitigation measures have been defined in the accompanying CEMP and NIS which will serve to protect areas earmarked for future land use.
23. Are there areas within or around the location which are densely populated or built-up, that could be affected by the Project?	<p>The subject development is located approximately 1.5km northwest of Castleblaney Town. The most proximate residential dwellings to the subject site are located c.75 metres southwest of the subject site.</p> <p>Nuisance effects (i.e. noise, traffic, dust) in the local population may arise due to the location of the site in proximity to an urban area.</p>	Some minor, time limited nuisance effects may arise due to the location of the works in proximity to an urban area. However, the works will be temporary and a comprehensive set of mitigation measures will be in place to prevent, minimize and control noise, dust and traffic related impacts.
24. Are there any areas within or around the location which are occupied by sensitive land uses e.g., hospitals, schools, places of worship, community facilities, that could be affected by the Project?	There are no sensitive land uses located within 1km of the subject site.	No, there will be no significant impact due to the location of the site in proximity to sensitive land uses.
25. Are there any areas within or around the location which contain important, high quality or scarce resources e.g., groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, that could be Affected by the Project?	<p>There are no areas of scarce natural resources within or in the vicinity of the site.</p> <p>The site is underlain by a poor aquifer which is generally unproductive except for local zones.</p> <p>The site is hydrologically connected to Dundalk Bay SAC and SPA. No other areas containing high quality resources are situated within the vicinity or sphere of influence of the site.</p>	No. There will be no impacts on high quality or scarce natural resources. Enhanced remediation will reduce the generation of leachate affecting groundwater and will consequently result in positive impacts. Mitigation measures will be in place to prevent polluting discharges to groundwater or surface waters as a consequence of proposed development activities.
26. Are there any areas within or around the location which are already subject to pollution or environmental damage e.g., where existing legal environmental standards are exceeded, that could be affected by the Project?	<p>The subject site comprises 1 no. invasive plant species, Japanese knotweed.</p> <p>Groundwater monitoring results from 2018 showed multiple parameters, namely ammoniacal nitrogen, alkalinity, total coliforms, arsenic, barium, iron, lead, manganese, nickel, potassium and mineral oil exceeded the EPA Interim Guideline Values (IGVs)</p>	An invasive species management plan has been prepared and an invasive species specialist or qualified ecologist will supervise cordoning and ongoing eradication (through burial) of any invasive species present at the time of construction.



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
	<p>and the Overall Threshold Value Range (OTVR) for Groundwater.</p> <p>Historical surface water monitoring from 2018 showed elevated levels of ammoniacal nitrogen and biological oxygen demand (BOD).</p> <p>Currently landfill gas as may be present vents gas to atmosphere via diffuse surface emissions.</p> <p>Once the proposed LLDPE barrier is installed this preferential pathway to atmosphere will be isolated.</p> <p>Above and below the LLDPE barrier a gas collection geocomposite and pipework system will be constructed to collect and direct landfill gas as may be present to controlled venting outlets to allow venting and/or oxidation of landfill gas as may be present to atmosphere.</p> <p>The gas collection geocomposite forms a 'cavity' to intercept gas emissions from the underlying body.</p>	<p>Having regard to the proposed remediation works and associated mitigation measures outlined in the accompanying NIS, it is noted that the project will not result in additional emissions or discharges which could cause pollution and will in fact improve the current conditions and emission at the site.</p>
27. Is the Project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g., temperature inversions, fogs, severe winds, which could cause the Project to present environmental problems?	The project is not susceptible to natural disasters.	No, no natural disasters likely at the works location. The development site is not situated in a flood risk zone as designated in the OPW's flood risk maps (CFRAM Maps or National Indicative Fluvial Mapping).



3.3 Schedule 7A Sub-Threshold Development Screening

3.3.1 Information Required

Directive 2014/52/EU contains guidance for Member States on the information that should be provided by developers and applicants for the purposes of screening sub-threshold developments for EIA.

The guidance is provided by way of criteria set out in Annex III of the Directive and are included in Schedule 7A of the Planning and Development Regulations, 2001 as amended, under the heading: *'Information to be provided by the applicant or developer for the purposes of screening sub-threshold development for Environmental Impact assessment'* and are grouped under four headings.

The requirements are as follows:

1. A description of the proposed development, including in particular:
 - (a) A description of the physical characteristics of the whole proposed development, and, where relevant, of demolition works, and
 - (b) A description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from:
 - (a) The expected residues and emissions and the production of waste, where relevant, and
 - (b) The use of natural resources, in particular soil, land, water and biodiversity.
4. The compilation of the information at paragraphs (1) to (3) shall take into account, where relevant, the criteria set out in Schedule 7.

3.3.2 Sub-Threshold Development Screening Under Schedule 7A

The criteria for evaluating the significance of environmental impacts of the proposed development under Schedule 7A was used in Table 3-2.



Table 3-2: Schedule 7A Environmental Impact Assessment Screening Criteria

Schedule 7A Requirement	Description
1. A description of the proposed development, including in particular –	A detailed description of the proposed development is in Section 2 and has been assessed with regard to Schedule 7 criteria in Table 3.1.
(a) A description of the physical characteristics of the whole proposed development, and, where relevant, of demolition works, and	A description of the physical characteristics of the whole proposed development is in Section 2 and has been assessed with regard to Schedule 7 criteria in Table 3.1. A description of site clearance works associated with the proposed development is provided in Section 2.1.3.3.
(b) A description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	A description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected is in Section 1.1 and has been assessed with regard to Schedule 7 criteria in Table 3.1.
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.	A description of the aspects of the environment likely to be significantly affected by the proposed development has been assessed with regard to Schedule 7 criteria in Table 3.1.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from: (a) The expected residues and emissions and the production of waste, where relevant, and	A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from the expected residues and emissions associated with the proposed development has been assessed with regard to Schedule 7 criteria in Table 3.1.
(b) The use of natural resources, in particular soil, land, water and biodiversity.	A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from the use of natural resources, in particular soil, land, water and biodiversity has been assessed with regard to Schedule 7 criteria in Table 3.1.
4. The compilation of the information at paragraphs (1) to (3) shall take into account, where relevant, the criteria set out in Schedule 7.	The criteria as set out in Schedule 7 is addressed in Section 3.2 and compilation of information in paragraphs (1) to (3) is in Section 2. This information has been assessed with regard to Schedule 7 in Table 3.1 of this report.

When assessing the proposed development with relation to Schedule 7A criteria listed in Section 3.3.2 and Table 3.2, it was noted that all aspects were already covered in the information provided under Schedule 7 and as such no additional assessment under Schedule 7A was considered necessary.



3.4 Impact Characterisation

In summary, it is noted that the proposed works which involve enhanced remediation works will ultimately have a positive impact on the existing environment once the works have been completed. Post-construction phase, the proposed LLDPE barrier will provide an engineered barrier that will isolate waste body from rainfall inputs and prevent leachate production that might otherwise contaminate groundwater. The proposed remediation works will have a positive impact on water quality within the river network downstream because leachate generation will reduce following construction of the engineered cap.

However, as detailed in Table 3.1, there are some potential slight negative impacts relating to leachate, sedimentation, dust, noise, invasive species and traffic associated with the proposed works which may impact upon hydrological, ecological and human receptors respectively. These effects are deemed to be negligible to slight but not significant due to the duration of the works and given the environmental control and mitigation measures that will be in place during the construction and operational phases of the proposed development.

Prior to any remediation works, it is noted that 2018 groundwater monitoring results showed multiple parameters, namely ammoniacal nitrogen, alkalinity, total coliforms, arsenic, barium, iron, lead, manganese, nickel, potassium and mineral oil exceeded the EPA Interim Guideline Values (IGVs) and the Overall Threshold Value Range (OTVR) for Groundwater. Elevated levels of ammoniacal nitrogen and biological oxygen demand (BOD) were also recorded in the surface water monitoring results.

Whilst it has been acknowledged that there could be potential for the proposed closed landfill remediation to have significant effects on Dundalk Bay SAC and Dundalk Bay SPA, with the implementation of the detailed mitigation measures identified in this NIS and set out in Condition 3 of the Certification of Authorisation, it is concluded beyond reasonable scientific doubt that the integrity of the Dundalk Bay SAC and Dundalk Bay SPA will not be adversely affected by the remediation works and the development site post remediation. The findings of this NIS are in line with the EPA's Stage Two Appropriate Assessment determination which informed their decision to grant the CoA. On the basis of objective scientific information, the proposed development will not, either alone or in combination with other plans or projects, adversely affect any of the constitutive interests of Dundalk Bay SAC and Dundalk Bay SPA, in light of the site's conservation objectives.

The carrying out of the remediation works are not likely to have a significant effect on the environment when considered cumulatively with the operational industrial building on the eastern portion of the site.

The potential impact to the local population is limited to the construction phase. Sensitive human receptors may be slightly affected by construction phase activities resulting in noise, dust and visual impacts. However, these impacts will be temporary in nature and mitigation measures, as defined in the CEMP for the proposed development, will be implemented to prevent, minimise and control such impacts. The effects are thus not likely to be significant.

In terms of Health and Safety, the Health and Safety at Work Act and its associated Regulations will be implemented. The Contractor will act as PSCS and will be required to prepare a Designer's Risk Assessment for all elements of the work. These measures will minimise the risk of impacts to human health.



4. CONCLUSION

The Requirement for the EIA of various types of developments are transposed into Irish legislation under the Planning and Development Act and the Planning and Development (Amendment) Regulations 2001-2022. Schedule 5 lists the different project types, and this is not a project type that mandatorily requires an EIA.

The subject works which relate to the remediation of a closed landfill, located to the northwest of Castleblayney town does not individually or cumulatively fall into a class of development set out in Schedule 5, Part 1 and 2 of the Planning and Development Regulations 2001 - 2022 (as amended) and therefore, the requirements for a mandatory EIA can be screened out.

However, sub-threshold EIA may be required where the project would be likely to have significant effects on the environment. Criteria for the consideration of sub-threshold EIA is set out in Schedule 7 and Schedule 7A of the Planning and Development Regulations 2001 - 2022 (as amended). These criteria have been set out within this document with respect to the subject development.

There could be potential for the proposed closed landfill remediation to have significant effects on Dundalk Bay SAC and Dundalk Bay SPA, however with the implementation of the detailed mitigation measures identified in the accompanying NIS, it is concluded beyond reasonable scientific doubt that the integrity of Dundalk Bay SAC and Dundalk Bay SPA will not be adversely affected.

Potential impacts to the receiving environment during construction have been set out. Slight traffic, air quality and noise impacts are likely during the construction phase of the project due to the operation of construction machinery and the carrying out of other construction activities.

These impacts will be prevented, minimised and controlled through a comprehensive set of mitigation measures, which are defined in the Construction Environmental Management Plan and Construction Traffic Management Plan which adjoins this application.

Slight visual impacts as a result of the subject development during construction are noted. It is noted that the subject works will significantly improve the visual appearance of the site as a whole once remediation works are completed.

The carrying out of the remediation works are not likely to have a significant effect on the environment when considered cumulatively with the operational industrial building on the eastern portion of the site.

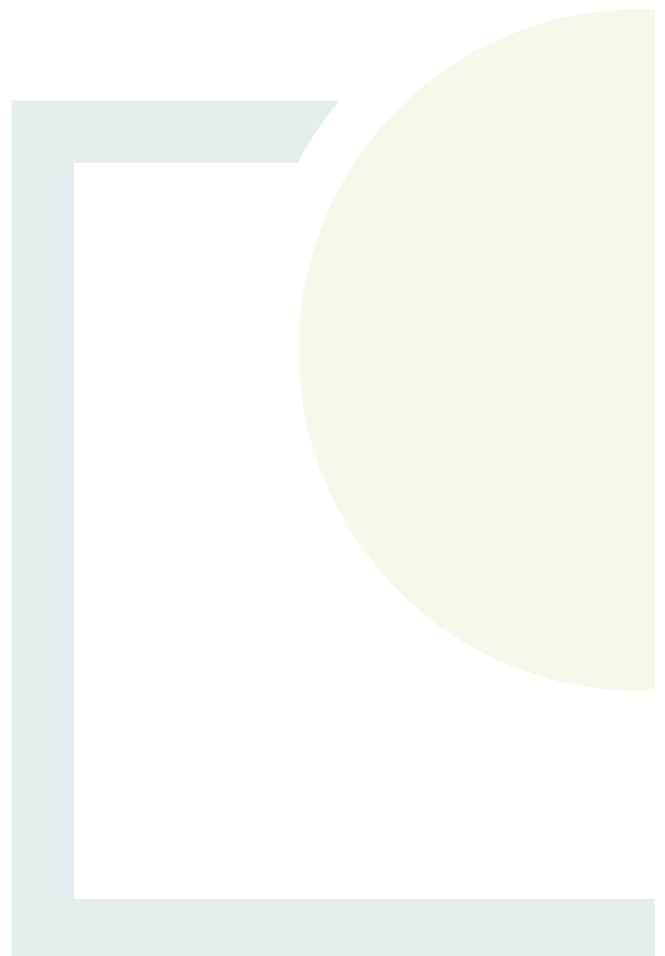
It is therefore submitted that sub-threshold EIA is not required for the subject remediation works, due to the project's limited impact on the receiving environment with respect to Schedule 7 of the Planning and Development Regulations 2001-2021, Annex II of the EIA Directive and the screening checklist provided in the EC guidance document for EIA Screening, as set out in this document.



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

APPENDIX 1

Certificate of Authorisation
(Licence Number: H0364-01)



Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

Closed Landfill Certificate of Authorisation

Certificate of Authorisation Number:	H0364-01
Certification of Authorisation Holder:	Monaghan County Council
Location of Facility:	Killicard Historic Landfill Killicard Castleblayney County Monaghan

HEADQUARTERS
JOHNSTOWN CASTLE ESTATE
COUNTY WEXFORD, IRELAND
PHONE: +353-53-9160600
FAX: +353-53-9160699

**WASTE MANAGEMENT (CERTIFICATION OF HISTORIC UNLICENSED
WASTE DISPOSAL AND RECOVERY ACTIVITY) REGULATIONS 2008**

HISTORIC LANDFILL

CERTIFICATE OF AUTHORISATION

Decision of Agency, under Regulation 7(6) of the Waste Management (Certification of
Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008

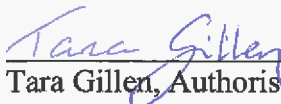
Reference Number: H0364-01

In pursuance of the powers conferred on it by the Waste Management (Certification of
Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008, the
Environmental Protection Agency (the Agency) grants, under Regulation 7(6) of the said
Regulations, this Certificate of Authorisation to Monaghan County Council, County
Offices, The Glen, Monaghan, in respect of the closed landfill at Killycard, Castleblayney,
County Monaghan, subject to conditions set out in the Certificate of Authorisation.

A copy of the Decision is attached.

Sealed by the Seal of the Agency on this the 19th day of March 2021

PRESENT when the seal of the Agency
was affixed hereto:


Tara Gillen, Authorised Person



Glossary of Terms

All terms in this Certificate of Authorisation should be interpreted in accordance with the definitions in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008 (S.I. No. 524 of 2008) unless otherwise defined in the Certificate of Authorisation.

Agency	Environmental Protection Agency.
Agreement	Agreement in writing.
Annually	At approximately twelve-monthly intervals.
Application	The application by the local authority for this Certificate of Authorisation including the risk assessment, any amendments to the risk assessment, additional information received from the local authority and other documents provided by the local authority.
Certificate of Authorisation	Includes this document and the application.
Closed Landfill	As defined in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.
Code of Practice	As defined in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.
Biannually	All or part of a period of six consecutive months.
Documentation	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this Certificate of Authorisation.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this Certificate of Authorisation.
Environmental Pollution	As defined in the Waste Management Act 1996 as amended.
Heavy Metals	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN 1-84095-015-3.

Incident	<p>The following shall constitute an incident for the purposes of this Certificate of Authorisation:</p> <ul style="list-style-type: none">(i) an emergency;(ii) any emission which does not comply with the requirements of this Certificate of Authorisation;(iii) any trigger level specified in this Certificate of Authorisation which is attained or exceeded; and(iv) any indication that environmental pollution has, or may have, taken place.
Inert Waste	<p>Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.</p>
Maintain	<p>Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.</p>
Necessary Measures	<p>As defined in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.</p>
Relevant Heavy Metals	<p>Heavy metals for analysis shall include, as a minimum, those metals identified as relevant, having regard to the risk assessment and surface water and groundwater monitoring results as required by this Certificate of Authorisation.</p>
Risk Assessment	<p>As defined in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.</p>
Sample	<p>Unless the context of this document indicates to the contrary, the term sample or samples shall include measurements taken by electronic instruments.</p>
Status	<p>As defined in the Water Framework Directive, in relation to surface water and groundwater.</p>
The Local Authority	<p>Monaghan County Council, County Offices, The Glen, Monaghan.</p>
Trigger Level	<p>A parameter value the achievement or exceedance of which requires certain actions to be taken by the local authority.</p>

Part I Authorisation of a Closed Landfill

The Environmental Protection Agency (the Agency) grants, under Regulation 7(6) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008 (the Regulations), this Certificate of Authorisation to Monaghan County Council, County Offices, The Glen, Monaghan, in respect of the closed landfill at Killycard, Castleblayney, County Monaghan, subject to Conditions set out in Part II and the Reasons for the Decision in Part III.

Part II Conditions

Condition 1. Scope

- 1.1 For the purposes of this Certificate of Authorisation, the closed landfill authorised by this Certificate of Authorisation is the area of land outlined in red on Figure No. 2.7 Revision A titled 'Existing Site Layout Killycard' (Figure date: 15/06/2018) submitted with the application. Any reference in this Certificate of Authorisation to "closed landfill" shall mean the area thus outlined in red.
- 1.2 No waste shall be accepted at the closed landfill.
- 1.3 No waste shall be burned at the closed landfill.
- 1.4 The facility shall be controlled, operated and maintained, and emissions shall take place as authorised by this Certificate of Authorisation. No material change that will result in an increase in the actual or potential nature or quantity of any emission shall be carried out or commenced without the agreement of the Agency.
- 1.5 Nothing in this Certificate of Authorisation shall prohibit authorised beneficial uses of the site of the closed landfill provided that such uses do not interfere with the integrity of the remediation measures adopted.

Reason: <i>To clarify the scope of this Certificate of Authorisation.</i>
--

Condition 2. Notifications, Records and Reports

- 2.1 The local authority shall notify the Agency, in a format as may be specified by the Agency, two months in advance of the intended date of commencement of the remediation works.
- 2.2 The local authority shall notify the Agency as soon as practicable after the occurrence of any incident. The incident notification shall be provided in a format as may be specified in relevant guidance issued by the Agency.
- 2.3 The local authority shall keep the following documents available for inspection by the Agency at all reasonable times and to members of the public by request:
- (a) Records of all sampling, analyses, measurements, examinations, calibrations and maintenance;
 - (b) Records of incidents;
 - (c) Records of all complaints of an environmental nature;
 - (d) The validation report prepared on completion of the remediation; and
 - (e) Other documentation required by this Certificate of Authorisation or as may be otherwise directed by the Agency.
- 2.4 The local authority shall assign the necessary resources, including financial, to complete the remediation measures specified in this Certificate of Authorisation and risk assessment and to respond to any incident.
- 2.5 The local authority shall annually pay to the Agency €1,083, or such sum as the Agency from time to time determines in accordance with charges policy, for the performance of its functions under the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008 in relation to the closed landfill regulated by this Certificate of Authorisation.

Reason: *To provide for the collection and reporting of adequate information on the activity. To provide for adequate resources for monitoring and measures to protect the environment.*

Condition 3. Management and Monitoring

3.1 The local authority shall implement the following measures within 24 months of the date of grant of this Certificate of Authorisation, or as otherwise agreed by the Agency:

- (a) Remove waste deposited in the Corrinshigo Lough and Corrinshigo Stream;
- (b) Minimise the disturbance of deposited waste to the extent possible;
- (c) Install a low permeability landfill cap, minimum 1m, with 1mm thick low permeability geomembrane having a hydraulic conductivity of less than or equal to $1 \times 10^{-9} \text{m/s}$;
- (d) Install passive gas venting system, which includes gravel filled vent trench with cowled vents for gas extraction along the eastern edge of the capped area. The gas venting system shall meet the following requirements:
 - (i) The base of the trench shall be constructed at the depth of the maximum depth of the waste body;
 - (ii) Gas vent pipes with cowls shall be installed within the trench every 20m and at other locations, as appropriate, such that the increased back-pressure caused by the cap does not result in increased lateral movement of gas;
 - (iii) The trench shall be connected to the existing gas wells; and
 - (iv) The gas vent pipes shall not be perforated above the ground level.
- (e) Install perimeter gas monitoring boreholes along the eastern and south-western site boundary of the facility. The gas monitoring boreholes shall be installed at a distance not exceeding 50m from each other;
- (f) Install a vertical cut-off and leachate interception trench;
- (g) Install three leachate monitoring boreholes within the waste body;
- (h) Unless otherwise agreed by the Agency, install at least three gas monitoring boreholes outside the waste body, of which one shall be upgradient of the waste body and two of which shall be downgradient of the waste body;
- (i) Unless otherwise agreed by the Agency, install at least three groundwater monitoring boreholes, of which one shall be upgradient of the waste body and two of which shall be downgradient of the waste body;
- (j) Reseed grass within the site;
- (k) Install continuous gas monitoring, gas vents and gas alarms in the on-site industrial units;
- (l) Ensure that recommendations in the guidance given in the Department of Environment 1994 publication "Protection of New Buildings and Occupants from Landfill Gas" and any subsequent revisions have been considered and applied to all buildings constructed on the facility;
- (m) The local authority shall, following gas monitoring, as required under Condition 3.9(c), for a period of twelve months, seek agreement of the

Agency regarding whether to carry out a gas pumping trial for the purpose of gas utilisation; and

- (n) Upon any agreement obtained in accordance with Condition 3.1(m), the local authority shall submit details of the proposed gas pumping trial for agreement by the Agency, and implement any recommendations arising therefrom.

3.2 Site Notice Board

- (a) The local authority shall, within one month of the date of grant of this Certificate of Authorisation and for the duration of the remediation works, provide a Site Notice Board on the closed landfill site so that it is legible to persons outside the main entrance to the closed landfill site. The minimum dimensions of the board shall be 1200 mm by 750 mm.
- (b) The board shall clearly show:
 - (i) The name of the Certificate of Authorisation holder;
 - (ii) The name of the closed landfill site;
 - (iii) The Certificate of Authorisation reference number;
 - (iv) The contact telephone in relation to the closed landfill site; and
 - (v) Where information relating to the closed landfill site can be obtained.

3.3 The local authority shall manage the closed landfill to ensure that discharges and emissions from the closed landfill do not cause environmental pollution or deterioration in the status of the receiving surface water body or groundwater body.

3.4 The local authority shall carry out appropriate monitoring on a biannual basis to identify any impact on the quality of water abstracted at wells downgradient of the landfill.

3.5 The local authority shall, within three months of the date of grant of this Certificate of Authorisation, seek authorisation from Irish Water for the acceptance of the landfill leachate at the Waste Water Treatment Plant, and obtain such authorisation within 12 months of the date of grant of this Certificate of Authorisation.

3.6 The local authority shall compile a validation report in accordance with the requirements of the Code of Practice. Unless otherwise agreed, the validation report shall be submitted to the Agency within 36 months of the date of grant of this Certificate of Authorisation.

3.7 The local authority shall assess the results of all monitoring carried out to confirm whether the closed landfill continues to achieve the objectives set for it in the risk assessment or this Certificate of Authorisation.

3.8 The local authority shall submit to the Agency, by the 31st March of each year, an annual update covering the previous calendar year. This update, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in Condition 3.9 of this Certificate of Authorisation.

- 3.9 The local authority shall annually, or as otherwise prescribed by the Agency, conduct and record:
- (a) A visual inspection of the landfill to ensure that the condition of the site has not deteriorated;
 - (b) Monitoring (sample, analyse, characterise, and measure the level) on a quarterly basis of leachate in all leachate monitoring boreholes. The monitoring shall, as a minimum, include the following parameters: Biochemical Oxygen Demand (BOD) (mg O₂/l), Total Ammonia (mg N/l), Molybdate Reactive Phosphorus (MRP) (mg P/l), relevant Heavy Metals and Coliforms.
 - (c) Monitoring on a quarterly basis to detect the presence and concentration of landfill gas in all monitoring boreholes;
 - (d) Monitoring (sample, analyse and characterise) on a quarterly basis of the Corrinshigo Stream both upstream and downstream of the closed landfill. The monitoring shall, as a minimum, include the following parameters: Biochemical Oxygen Demand (BOD) (mg O₂/l), Total Ammonia (mg N/l) and Molybdate Reactive Phosphorus (MRP) (mg P/l);
 - (e) Monitoring (sample, analyse and characterise) on a quarterly basis of groundwater from:
 - (i) At the additional upgradient and downgradient groundwater monitoring boreholes; and
 - (ii) The boreholes GW01, GW02 and GW03 within the waste body.The monitoring shall, as a minimum, include the following parameters: Ammonia, Lead, Nickel and Coliforms.
 - (f) The assessment of monitoring results against trigger levels and/or standard reference values for relevant pollutants including environmental quality standards in the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended, and European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended.
- 3.10 The location, frequency, methods and scope of surveys, monitoring, sampling and analyses, as set out in this Certificate of Authorisation, may be amended with the agreement of the Agency.
- 3.11 Soil and Stone Acceptance
- 3.11.1 Soil and stone imported for use in remedial, corrective or other engineering works at the closed landfill shall be greenfield soil and stone or soil and stone of equivalent nature and character in terms of chemical and physical contamination.
 - 3.11.2 Documented acceptance, storage/stockpiling and utilisation procedures shall be operational in advance of receipt of such materials. Records shall be maintained showing the site of origin of the soil and stone and its nature.

- 3.12 No emissions, including odours and noise, from works carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
- 3.13 The local authority shall ensure that the closed landfill does not result in an impairment of, or an interference with, amenities or the environment at the facility or beyond the facility boundary (including those arising from emissions (including odours, noise, dust, litter and mud), vermin and birds).
- 3.14 The local authority shall ensure, at all times after the grant of this Certificate of Authorisation, that all infrastructure and all equipment required under this Certificate of Authorisation has been and is:
- (i) Installed;
 - (ii) Commissioned;
 - (iii) Present on site; and
 - (iv) Maintained in full working order.
- 3.15 Wells and boreholes
- 3.15.1 Groundwater monitoring wells shall be constructed having regard to the guidance given in the Agency's landfill manual "Landfill Monitoring".
- 3.15.2 All wellheads shall be adequately protected to prevent contamination or physical damage.
- 3.15.3 All wells and boreholes shall be adequately sealed to prevent surface contamination and, as may be appropriate, decommissioned according to the UK Environment Agency guidelines "Decommissioning Redundant Boreholes and Wells", unless otherwise agreed by the Agency.
- 3.16 The local authority shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the risk assessment or this Certificate of Authorisation. The requirement with regard to off-site points is subject to the prior agreement of the landowners concerned.
- 3.17 Incidents
- In the event of an incident the local authority shall immediately:
- (a) If necessary, contact the emergency services;
 - (b) Carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - (c) Isolate the source of any such emission;
 - (d) Evaluate the environmental pollution, if any, caused by the incident;
 - (e) Identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - (f) Identify the date, time and place of the incident; and

- (g) Notify the Agency (in accordance with Condition 2.2) and all other relevant authorities including, where relevant, the Water Services Authority and Inland Fisheries Ireland.

3.18 Invasive Species Prevention and Eradication Plan

The Certificate of Authorisation holder shall establish, maintain and implement an invasive species prevention and eradication plan, to cover at least, Japanese Knotweed, Giant Knotweed, Bohemian Knotweed and any other relevant invasive species. The plan shall as a minimum identify specific actions for:

- (a) The prevention, to the extent possible, of acceptance of invasive species in loads of soil and stone or of topsoil arriving at the facility, actions to include requesting of information on the presence and management of invasive species at source sites;
- (b) Quarterly surveys of the facility for the detection of the growth of invasive species during remediation works and during the implementation of the invasive species prevention and eradication plan, moving to annual surveys following validation in accordance with Condition 3.18(f);
- (c) The method for plant detection and identification;
- (d) The remedial actions for eradication of invasive species growing at the facility;
- (e) Staff training on plant identification and eradication, and
- (f) Validation to confirm the absence of invasive species at the restored facility.

The Certificate of Authorisation holder shall maintain evidence of having obtained the advice and implemented the recommendations of an independent and appropriately qualified consultant, in the establishment of the Plan and any amendments to it that concern the action items listed above.

3.19 Communications Programme

3.19.1 The Certificate of Authorisation holder shall establish, maintain and implement a Communications Programme to ensure that members of the public can obtain information from the local authority concerning the closed landfill.

3.19.2 The Communications Programme shall inform members of the public what they can and should do to protect their property and health.

3.19.3 The local authority shall, as part of the Communications Programme, publish landfill gas monitoring data quarterly and landfill leachate monitoring data biannually in a manner accessible by the public.

3.20 The integrity and water tightness of all tanks, bunding structures, containers and associated relevant underground pipes and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee prior to use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

Reason: *To make provision for the proper closure of the activity ensuring protection of the environment.*

Part III: Schedules

Schedule 1: Reasons for the Decision

In granting this Certificate of Authorisation, the Agency determines that the risk assessment submitted by the local authority as part of the application for a Certificate of Authorisation is adequate. To ensure appropriate protection for human health and the environment and to ensure conformity with the provisions of Council Directive 2008/98/EC and Council Directive 2006/118/EC, the conditions set out in Part II of this Certificate of Authorisation are specified as further necessary measures in addition to those identified by the risk assessment.

The Agency also considers that the activity will not adversely affect the integrity of any European Site, and has decided to impose conditions for the purposes of ensuring it does not do so. It has determined that the activity, if managed, operated and controlled in accordance with the Certificate of Authorisation, will not have any adverse effect on the integrity of any of those sites.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Dundalk Bay SAC (Site Code: 000455), Dundalk Bay SPA (Site Code: 004026) and Slieve Gullion NI SAC (Site Code: 0030277).

The activity is not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the activity, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activity was required.

The reason for this determination is as follows:

- There is a hydrological connection between the closed landfill and Dundalk Bay SAC (Site Code: 000455) and Dundalk Bay SPA (Site Code: 004026).

The Agency has completed the Appropriate Assessment of potential impacts on these sites and has made certain, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activity, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Dundalk Bay SAC (Site Code: 000455), Dundalk Bay SPA (Site Code: 004026) and Slieve Gullion NI SAC (Site Code: 0030277), having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with the application, risk assessment and this Certificate of Authorisation and the conditions attached hereto for the following reasons:

- specifically, the remedial works will be undertaken to minimise the potential for water pollution in Dundalk Bay SAC (Site Code: 000455) and Dundalk Bay SPA (Site Code: 004026) and will ensure that there will be no significant impact on these European Sites;
- the project alone, which consists of the remediation of the closed landfill, or in combination with other projects, will not adversely affect the integrity, and conservation status of any of the qualifying interests of Dundalk Bay SAC (Site Code: 000455) and Dundalk Bay SPA (Site Code: 004026);
- also, there are no significant emissions to air from the landfill which could affect the bird species that the Dundalk Bay SPA (Site Code: 004026) is designated for; and
- there is no hydrogeological connectivity between the closed landfill and Slieve Gullion NI SAC (Site Code: 0030277).

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites: Dundalk Bay SAC (Site Code: 000455), Dundalk Bay SPA (Site Code: 004026) and Slieve Gullion NI SAC (Site Code: 0030277).

Part IV: SIGNATURE

Sealed by the Seal of the Agency on this the 19th day of March 2021

PRESENT when the Seal of the Agency was affixed hereto:


Tara Gillen, Authorised Person





**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING**

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