

Environmental Impact Assessment Screening Report

Proposed Public Park, Remediation and Restoration Works



Finisklin Closed Landfill

**On behalf of
Sligo County Council**



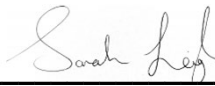


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Proposed Public Park, Remediation and Restoration Works
Sligo County Council
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1 INTRODUCTION

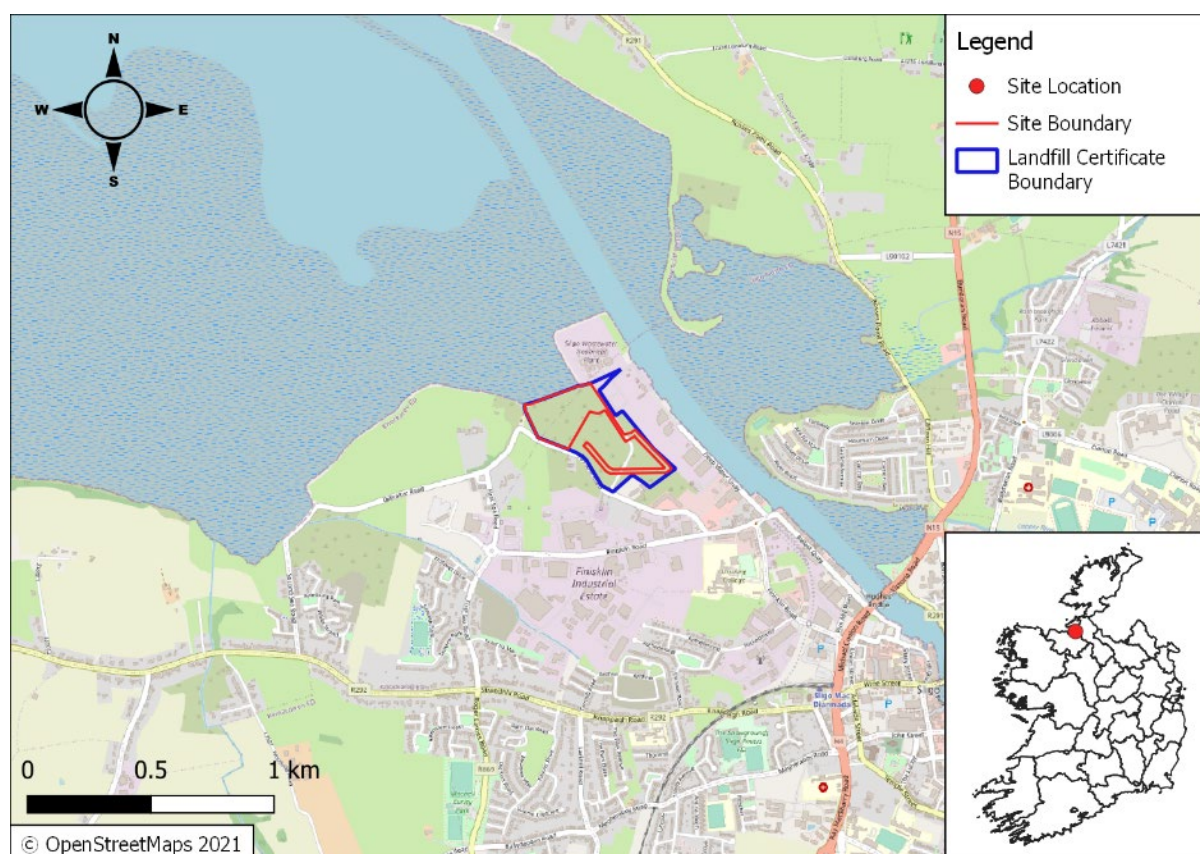
Malone O'Regan Environmental (MOR) was commissioned to prepare an Environmental Impact Assessment (EIA) Screening Report on behalf of Sligo County Council (SCC) for the closed Finisklin landfill (the Site) taking account of the following proposals:

- Remedial works which will include the installation of six (6No.) bio-windows and one (1No.) bioactive-trench at specific parts of the Site; and
- Development of a public park in the northern portion of the Site.

The scope of the proposed remediation works has been agreed with the Environmental Protection Agency (EPA) and are required to comply with the Certificate of Authorisation (CoA) that was issued to SCC on the 13th of September 2018. The Proposed Development of a new public park on a portion of the former landfill will provide an important new amenity to the local community.

The Proposed Development is located within a closed landfill approximately 1.5 km northwest of Sligo Town Centre on the southern shores of the Garavogue River /Estuary. The location of the Proposed Development ('the Site') is shown in Figure 1-1 (OS Reference G 67732 37069).

Figure 1-1: Site Location



This EIA Screening Report has been prepared to consider the requirement, or otherwise, of carrying out an EIA in respect of the Proposed Development. This screening exercise was undertaken in two stages:

- Stage 1 considered the requirement for a mandatory EIA; and
- Stage 2 considered the requirement for a sub-threshold EIA.

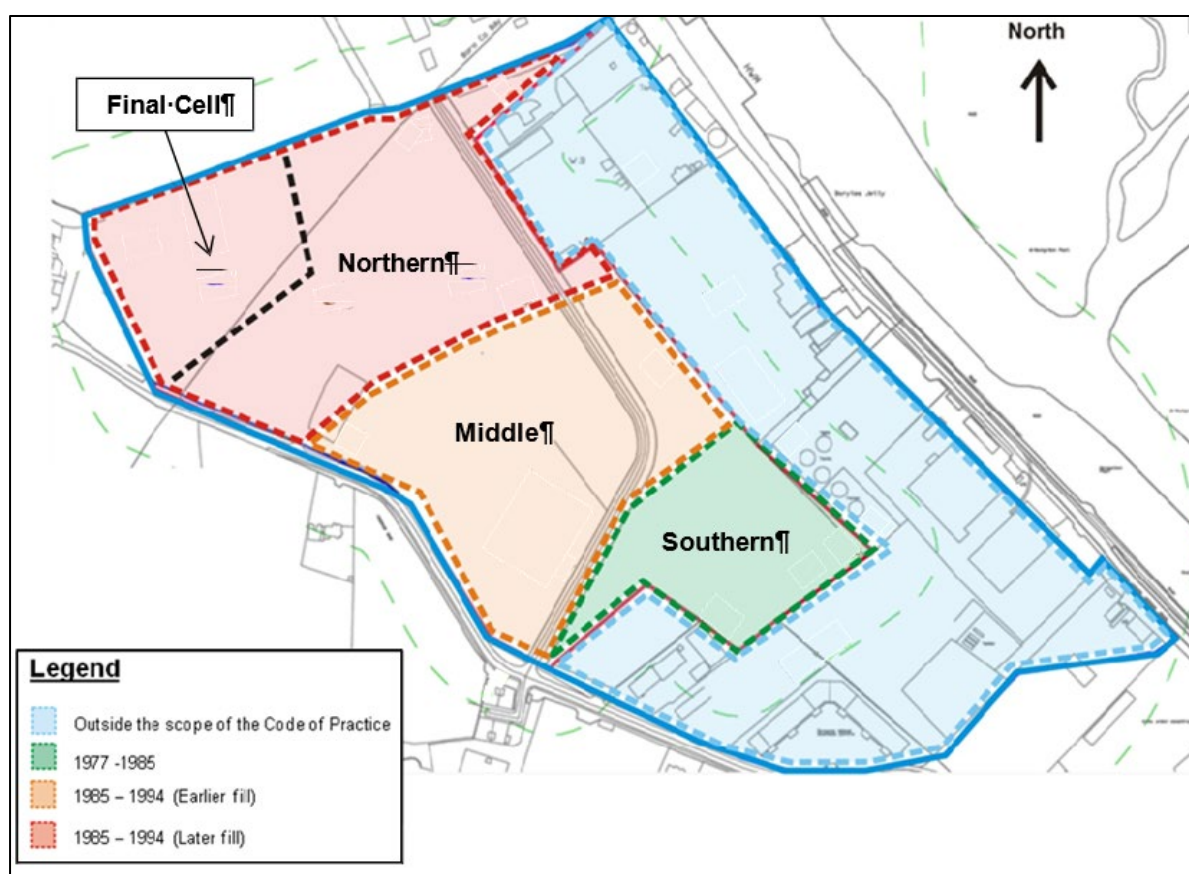
As part of the sub-threshold screening exercise, the potential impacts on environmental sensitivities were considered in addition to the interrelationship between those environmental sensitivities.

1.1 Site History

The deposition of domestic, commercial, construction and demolition (C&D) wastes and capping material occurred within the Site boundary from 1977, in the southern portion of the Site, until 1994 in the northern portion of the Site. The available information indicates that the thickness of the waste body varies from approximately 1.9m to 4.5m including the capping layer (MOR, 2017).

Based on a review of historical mapping, reports and aerial photographs, it appears that waste materials have also been deposited externally to the Site boundary prior to 1977 (MOR, 2017). Refer to Figure 1-2 below.

Figure 1-2: Inferred Phasing of Filling Activities



A large rock bund was constructed to function as the outermost boundary of the Site (into the harbour) and all filling activities were undertaken on the landside of this bund (MOR, 2017). This porous rock bund was designed and constructed with a seaward opening/entrance (approximately 30m width crest) which allowed the free flow of the tide to and from the cells in order to avoid the build-up of leachate within the unused cell and partially filled cells at that time i.e. using the dilute and disperse principle (MOR, 2017).

1.1.1 Previous Relevant Environmental Investigations

An application for a Certificate of Authorisation (CoA) for the Site was submitted (including the Tier 3 Risk Assessment 2011) to the EPA in June 2012. In December 2016, the EPA requested that some supplementary information should be submitted in support of the application in a

letter issued to SCC dated the 15th of December 2016 (see Appendix A). Following this, the EPA then issued SCC the Closed Landfill CoA, number H0006-01, on the 13th of September 2018.

Tier 3 Risk Assessment and Site Prioritisation 2011

The report titled “*Former Finisklin Landfill – Environmental Assessment Project*” dated 2011 outlines the details of an environmental risk assessment completed at the closed landfill site (MOR, 2011). In brief, the report outlines the results of a comprehensive site investigation and a quantitative risk assessment. The findings of the Tier 3 Risk Assessment identified that the Site was categorised as High Risk in accordance with the EPA Code of Practice (MOR, 2011). The Conceptual Site Model (CSM) identified that the valid pollutant linkages included the risk of leachate migration to surface water and associated protected areas (Natura 2000) and to offsite human receptors from landfill gas emissions.

Tier 3 Risk Assessment Addendum (2017)

The report titled “*Addendum Environmental Risk Assessment – Former Finisklin Landfill*” dated 2017 documents the additional works (including further intrusive investigation/monitoring works) carried out (MOR, 2017). This was done in response to the EPA’s request for supplementary information in a letter issued to SCC dated the 15th of December 2016. Based on the results and information gathered, it was concluded that the potential impact associated with leachate migrating via seeps to the adjoining surface waters would not have any impact on the overall water quality of the Garavogue Estuary and/or ecological habitats within the adjoining Natura 2000 site. However, the risk of migration of landfill gases to offsite receptors remained, therefore remedial action was warranted.

Landfill Gas Pumping Trial (2020)

To comply with the CoA conditions further landfill gas pumping trials were undertaken and the following conclusions were made in a Landfill Gas Report (MOR, 2020c):

- The gas monitoring infrastructure was replaced in 2018 and monitoring results were in line with the historical results.
- The Site was classed as low gas risk requiring passive gas protection.
- Surface volatile organic compound (VOC) emission monitoring did not encounter any CH₄ exceedances within the extent of fill.
- The western portion of the Site was underlain by clayey soil and there was limited potential for widespread offsite gas migration towards the west.
- A bioactive trench would act as a pressure release zone to allow surface emissions of any remaining CH₄ flux.
- A small number of biowindows would provide a series of zones for passive oxidation of CH₄.

The EPA approved the proposed works in correspondence dated 9th November 2020, i.e., for the installation of six (6No.) biowindows and one (1No.) bioactive trench within the Site. A copy of this letter to SCC is attached in Appendix A.

1.2 Planning and Licencing Regulatory Context

In April 2005, the European Court of Justice (ECJ) decision (C-494/01) found that Ireland had failed to fully implement the Waste Directive (72/442/EEC) as municipal landfills operational between 1977 and 1997 did not hold the requisite permit (RWMPO, 2020). In response, the Waste Management Regulations 2008 (S.I. 524/2008) were published which prompted Local Authorities to undertake the following;

- Identify all “closed landfills” and maintain a register;
- Carry out a risk assessment of all closed landfills in accordance with Environmental Protection Agency (EPA) guidance (EPA, 2007);
- Prepare an application to the EPA for a Certificate of Authorisation (CoA); and
- Make all reasonable efforts to comply with the CoA issued to it by the EPA.

1.2.1 Basis for Application under Section 177AE

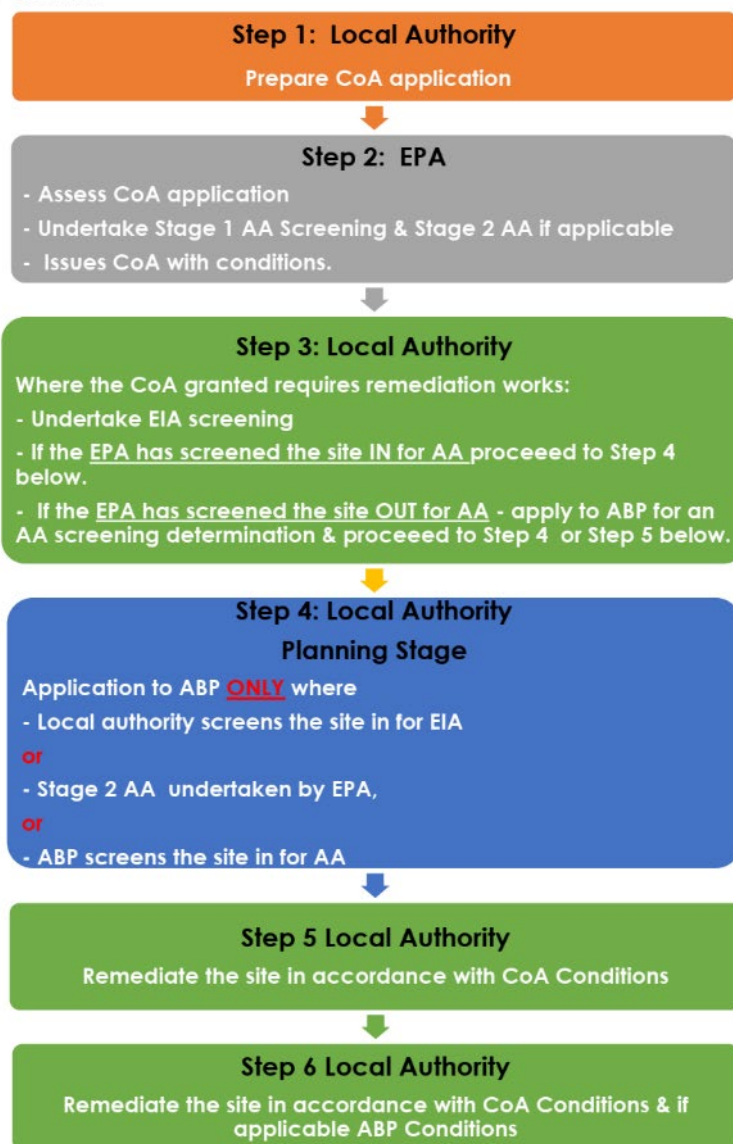
The Regional Waste Management Planning Office (RWMPO) obtained legal advice in relation to the statutory planning requirements for undertaking remedial works on historic landfill sites in compliance with Certificates issued by the EPA, which outlined the following;

- *“Site remediation works required under an authorisation issued under SI 524/2008 are not subject to the public consultation procedure under Section 179 of the Planning & Development Act (PDA) 2000 and Part 8 of the Planning & Development Regulations 2001 because the works consist of works which a local authority is required to undertake by or under any enactment”.*
- *“Section 177AE of the PDA 2000 provides that where an AA 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. Section 177AE presupposes that a Stage 1 screening exercise will be carried out in respect of proposed local authority development. It is not at all clear, however, as to when and by whom this screening exercise is to be carried out.”*
- *“At all events, in a case such as the present 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”*

A flow chart outlining the simplified regulatory steps to be undertaken prior to commencing the proposed remediation works on a closed landfill are outlined in Figure 1-3.

Figure 1-3: Flow Chart outlining Procedure for the Certification and Remediation of “Closed Landfills”

FLOW CHART



RWMPO Guidance re “closed landfill” planning and planning exemptions. Issue No. 1 - Nov. 2020

The EPA in their screening determination¹ dated the 15th of December 2016 determined that an Appropriate Assessment of the activity is required “*and that for this reason ...the applicant (must)...submit a Natura Impact statement*”. Therefore, an application to An Bord Pleanála under section 177AE must be made for the proposed works.

¹ EPA (2016) Screening determination (online) available at:
https://epawebapp.epa.ie/licences/lic_eDMS/090151b2805e5c28.pdf

2 DESCRIPTION OF PROPOSED DEVELOPMENT

2.1 Site Context

The Site, which covers an area of ca. 6.27 hectares (ha), is located within the ca.13ha of closed landfill area at Finisklin, just northwest of Sligo town. The proposed works form part of the remediation strategy required for the management of the closed landfill in compliance with the conditions of the CoA as well as the provision of a new public park.

The remediation measures were based on the findings of the Tier 3 Environmental Risk Assessment for the Site (MOR, 2017) and the subsequent Landfill Gas Pumping Trials (MOR, 2020c) and will address the potential risk of landfill gas migration to offsite properties. The measures are required under the conditions of CoA H0006-01. Refer to section 1.2.1 above.

The Site is bordered to the north by Sligo Harbour / Garavogue Estuary and the Sligo Wastewater Treatment Plant (WWTP), to the east by commercial / industrial facilities located on Deepwater Berths Road, to the south by further commercial / industrial facilities and to the west by Finisklin Road and Far Finisklin cul-de-sac along which there are residential properties. The former landfill is now well vegetated with a mix of grassland and scrub habitats onsite. See Figure 2-1 below.

Figure 2-1: Site Location and Surrounding Area



2.2 Proposed Development

The Proposed Development will consist of the remediation works and development of a new park located on the closed Finisklin Landfill site. The total area of the Site will be 6.27ha, which the majority namely 4.8ha, will comprise of a new public park. The proposed works will include the following:

- Remediation works including the installation of six (6No) biowindows, one (1No) bioactive trench and increasing the thickness of the landfill capping layer within a localised portion of the Site, these remediation works have been agreed with the EPA in accordance with requirements of COA H0006-01;
- Provision of a ca. 4.8 ha public park including 1,000m of a 3.5m wide walking track;
- Construction of an 18m² viewing platform;
- Construction of a ca. 750 m² car park, including 27No. of car parking spaces and 10No. of bicycle parking spaces;
- Demolition of a 4m² single story concrete block hut;
- Modifications to the existing site entrance and provision of new gates;
- Provision of a new pedestrian entrance; and,
- Associated ancillary works including land grading, drainage works, landscaping, fencing and seating areas.

Refer to drawing P804 and P805 submitted with this application for further details.

2.2.1 Biowindows and Bioactive Trenches

Based on recorded results and numerous different investigations it can be confirmed that the landfill gas identified at the former landfill presents no immediate risk to any offsite properties specifically those located along the north-eastern side of the Site on Deepwater Berths Road.

However, based on detailed assessments undertaken in conjunction with the EPA, the risk posed by potential off site gas migration was determined to be higher at the north-eastern and north-western boundaries. This is primarily due to the fact that these were the locations where the most recent waste was deposited before the former landfill was closed (MOR, 2011). It was subsequently agreed with the EPA that venting biowindows and an intercepting bioactive trench will be installed at specific locations to passively vent methane gas at low concentrations.

A biowindow is an accepted system for mitigating landfill methane emissions to the atmosphere. These biowindows and bioactive trenches contain naturally occurring methanotrophs (methane consuming microorganisms). These methanotrophs convert methane in the landfill gas, in the presence of oxygen to energy, carbon dioxide, water and cell material. Biowindows are integrated with the landfill soil cover in small areas where higher methane emissions have been observed. A biowindow receives passively vented landfill gas from underlying waste, this, in turn, presents variable routes for the movement of gas preventing lateral gas migration as well as reducing methane emissions and therefore global warming potential (refer to Section 4.8 Climate for further information).

An intercepting bioactive trench is proposed to be installed along a section of the north-eastern boundary. The bioactive trench has been designed to intercept, collect and treat methane generated from the landfill and channel it through the same methane oxidising mechanism as the biowindow.

Extensive consultation took place with the EPA regarding this remediation strategy through several letters, reports, meetings and site visits. The EPA were satisfied that the concentrations of landfill gas being generated by the closed landfill did not warrant any active landfill gas collection system. Taking a precautionary approach, the EPA did stipulate the requirement for additional biowindows in the southern part of the landfill despite the

conclusions that there was no active gas production in this region, see section 4.8 for more information.

The report titled “Landfill Biowindow Specification CoA H0006-01 Finisklin Closed Landfill” dated August 2020 was prepared and issued in response to a letter from the EPA dated 26th June 2020 (see Appendix A) (MOR, 2020b). The report details the following:

- The scientific justifications for the proposed biowindow designs;
- Sets out the biowindow designs; and
- Sets out the monitoring systems proposed for the biowindows.

In brief, to meet the calculated area of biowindow required to effectively remediate landfill gas at the Site, the following specifications were deemed to be required;

- The Final Cell - One (1No.) biowindow sized 12m x 12m to be installed;
- The Northern Cell - One (1No.) biowindow sized 20m X 20m;
- The Middle Cell - Three (3No.) biowindows 10m x 10m at the surface to be installed;
- The Southern Cell - One (1No.) biowindow 10m x 10m to be installed; and
- The Northern/Middle Cell – One (1No.) bioactive trench sized 200m x 4m x 4m to be installed.

Figure 2-2: Proposed (approximate) locations for Biowindows and the Bioactive trench

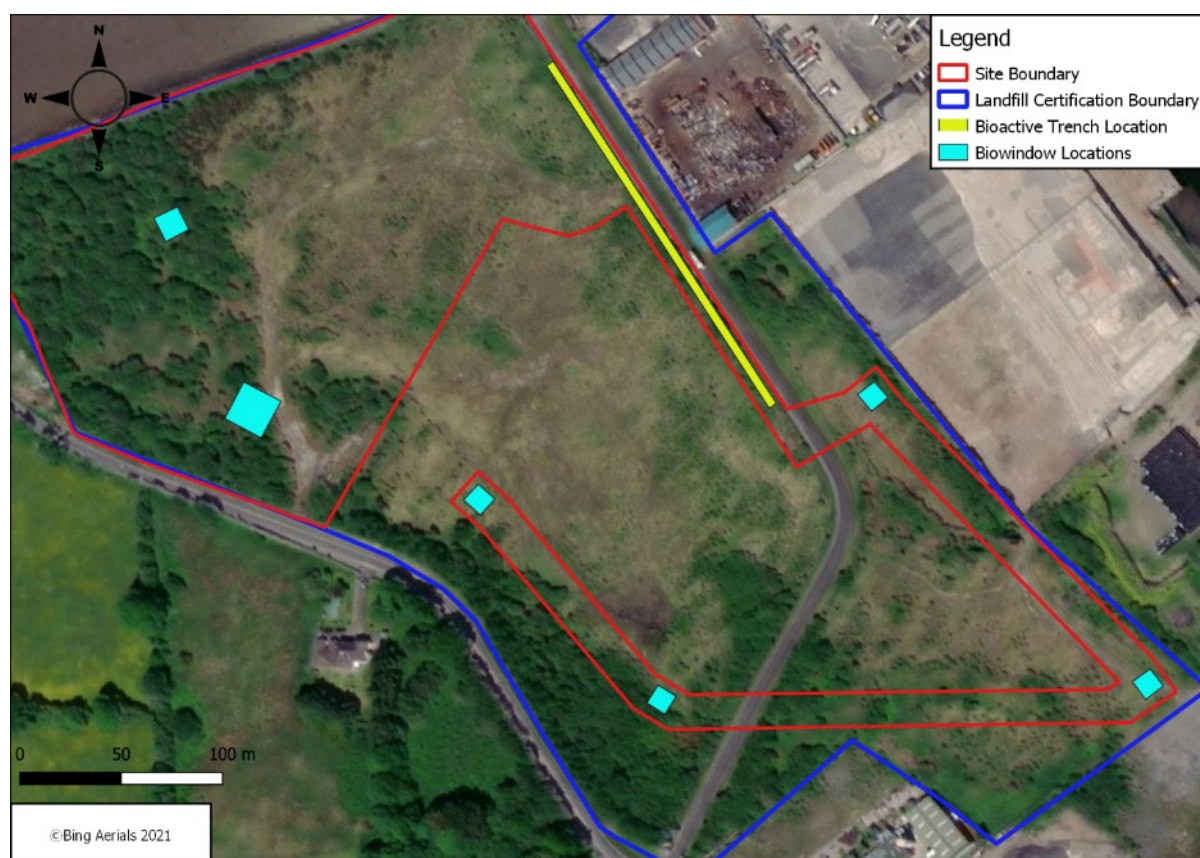


Table 2-1: Parameters for the Design of the Biowindows and Bioactive Trench.

Layer	Biowindow (2 m cap)	Bioactive Trench (2 m cap)	Notes
Topsoil with vegetation	10 cm nominal	10 cm nominal	Vegetation increases oxygen diffusion into subsoil and enhances methane oxidation
Methane Oxidising Layer (MOL)	120 cm minimum	120 cm minimum	Either compost or medium sand are suitable materials
Capillary Break	20 cm nominal	20 cm nominal	A medium non-calcareous sand is required to break the capillary effect between the MOL and the GDL. Grain size 0.5 – 2.0 mm
Gas Distribution Layer (GDL)	50 cm at highest and 30 cm at lowest point of capillary layer	50 cm at highest and 30 cm at lowest point of capillary break layer	A no fines non-calcareous gravel with a particle size 20 – 60 mm

The sides of the Methane Oxidising Layer (MOL) in the top 1 m will be hopper shaped to reduce the propensity for short circuiting of gas flow at the edges of the biowindows or the bioactive trench.

The base of the MOL, capillary break layer, and the top of the gas distribution layer (GDL) will be inclined at an angle of between 2-5° to the horizontal, into the centre of the biowindow or towards the waste in the bioactive trench, to reduce the risk of water collecting at the capillary break and increase the length of unrestricted gas migration (LUGM). The GDL is laid in direct contact with the waste.

A herringbone drainage system will be installed at the base of the MOL to help increase the length of the LUGM parameter. This will comprise of four pipes with perforated upper halves, laid on the top of the capillary break level. The four arms of the herringbone follow the slope of the Capillary Break level and will drain through a single unperforated pipe into the GDL. Any gas migrating up the drainage system will also be distributed through the perforations in the drainage pipe.

During construction, the MOL may be lightly compacted to reduce the need for additional material to be added to the biowindows following settlement. Light compaction will not affect the oxidising performance of the MOL. Figure 2-3, Figure 2-4 and Figure 2-5 show the sectional layouts for the biowindow and the bioactive trench.

Figure 2-3: Design of Biowindow (12m x 12m version).

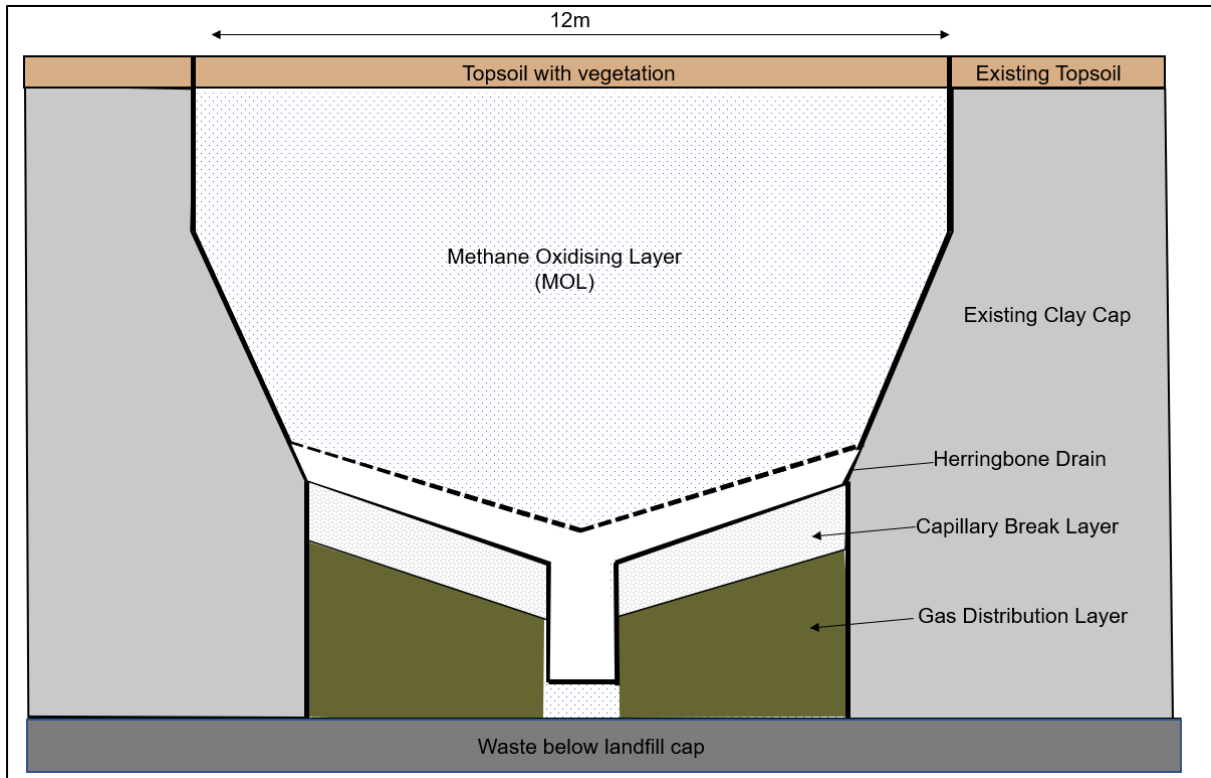


Figure 2-4: Design of Bioactive Trench.

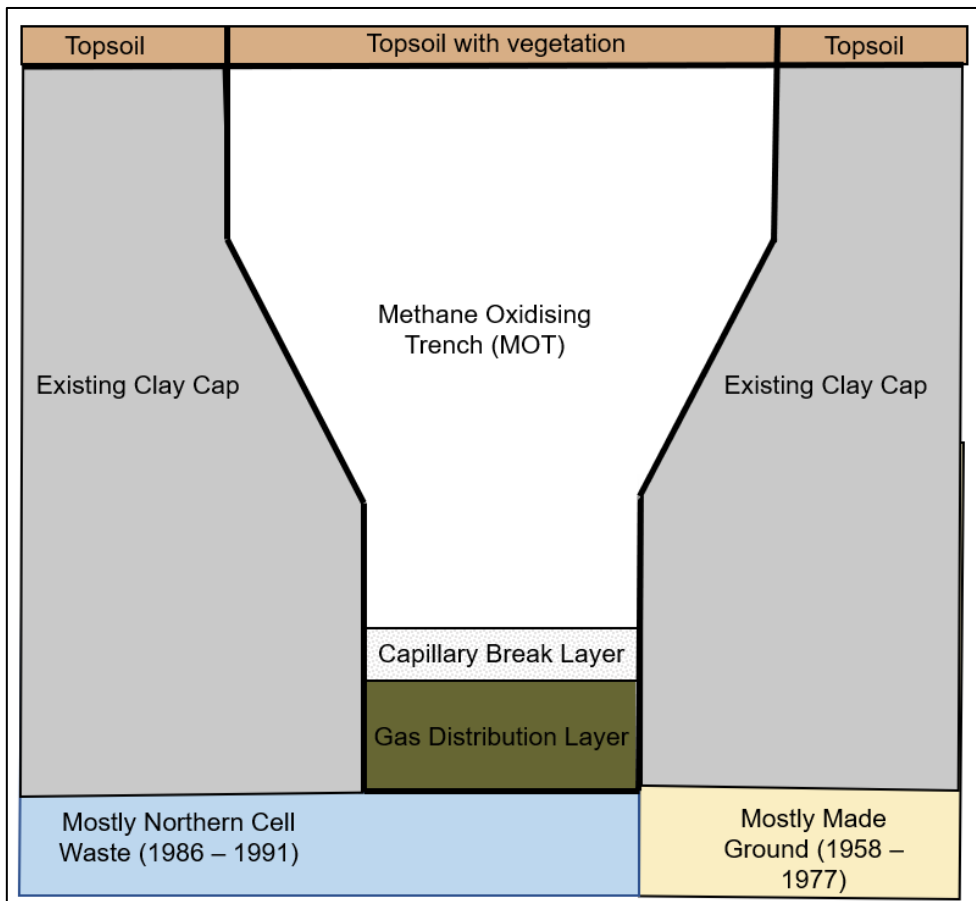
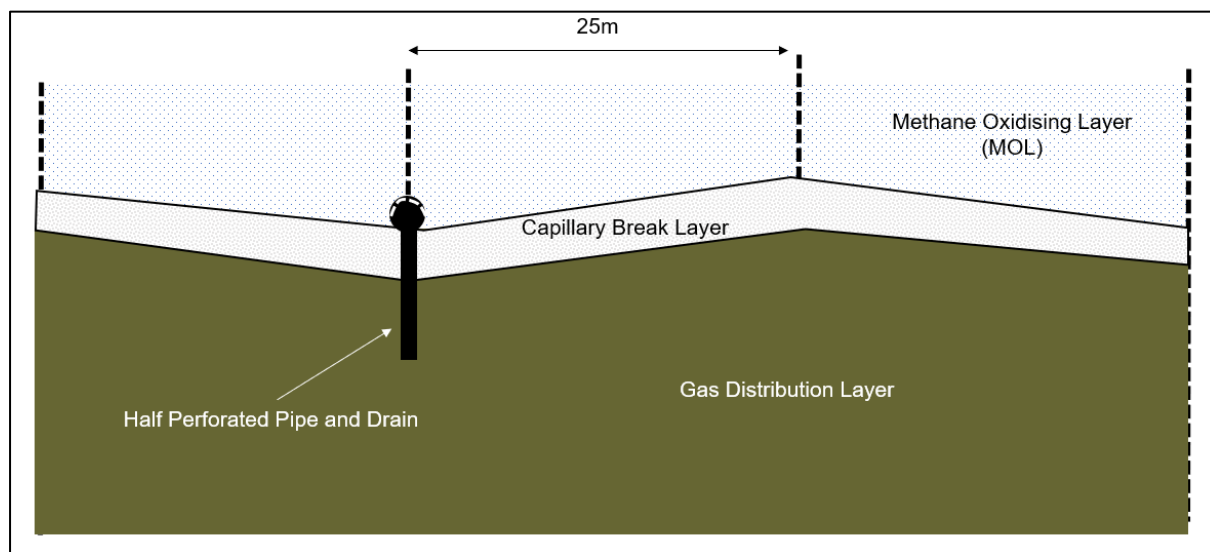


Figure 2-5: Design of Bioactive Trench – View on Long Section of Trench Showing Zig-Zag Capillary Break Layer.



2.2.2 Earthworks / Landfill Capping

The EPA, in the CoA determination (H0006-01), require under condition 3.1(c) that SCC “Install a permeable landfill cap, minimum 500mm”. A detailed investigation was undertaken by MOR in consultation with the EPA to determine the thickness of the capping layer. The results of this investigation confirmed that at some locations within the former landfill that capping layer had only a thickness between 200mm and 400mm thick. The EPA instructed that the thickness of the capping layer in the identified locations had to increase to a thickness of 500mm. It is estimated that ca.1,900 tonnes of soil will be required to bring the capping layer up to this mandatory depth. Excavation works for the public park including the walking track and car park will provide ca. 1,550 tonnes, the remaining ca. 350 tonnes will be sourced by regrading parts of the Site during landscaping works in areas that have surplus capping material. This approach will avoid the need to import any materials from offsite sources.

These works will first require the clearing of willow dominant scrub within the footprint of the proposed capping works. These areas will be replanted in accordance with the landscape plan, refer to the Amenity Area Layout submitted with this application.

2.2.3 Public Park - Landscaping

A Landscape Plan has been prepared to outline the proposed public park development and has been submitted with this application.

The public park (4.8ha) includes the construction of a walking track and associated landscaping works. The design style is based on the sensitive enhancement of the Site, using a controlled spatial arrangement, and a visual sequence of directing focus and attention within the area.

The aim is that the landscape layout will add to and positively reinforce the naturalized character of the lands (see Figure 2-6 below, for further information refer to the landscape plan submitted with this application). The key elements of the Landscape Plan are:

- The biowindow locations are lightly buffered with a surround of low to mid-sized regenerating planting.
- A low-key walking track network (3.5m in width) with considered views is incorporated which allow for exploration and appreciation of the scenic landscape.
- Key seating areas form focal point resting and viewing areas.

- On areas where soil is to be deposited, the existing scrub vegetation will be removed. It is proposed to reseed these areas with species rich grassland to aid in promoting biodiversity and in keeping with the All-Ireland Pollinator plan (NBDC, 2021). Precise seed mix is to be tailored by a wildflower specialist following final soil tests to achieve maximum diversity and pollinator benefits on the site.
- The resting nodes / seating areas act as key pivot points offset from the circulation pathway within the natural open areas.
- A viewing platform is incorporated at a strategic point in the design (Size 6 x 3 m).
- The existing regenerating vegetation (clusters of *Ulex* and juvenile *Salix* scrub) is to be retained throughout the site where appropriate and allowed to regenerate.
- Existing retained stands of willow species (*Salix spp.*) provide vertical punctuation within the space.
- It is proposed to clear Willow / scrub in a meandering area offset approx. 3 meters each side of the pathway to aid enticement, movement and direction into the open amenity area.

Figure 2-6: Excerpt from Landscape Plan (refer to landscape plan for further detail)



2.2.4 Walking Track

The walking track will be 1000m in length and generally 3.5m wide. Excavation to a minimum of 200mm to achieve a gently graded track will be required. Importation and fill using a minimum of 100mm clause 804 hardcore and compacted and grade to falls. Surface with self-binding gravel layer with a compacted thickness of 35-40mm.

The walking track will be slightly sunken (50-100mm) in relation to surrounding ground levels, thereby creating a slight sloping side which will frame and provide definition for the track edges. These gentle falls with existing topography will allow for water runoff with exit points to adjacent lower-level ground at 3-5 metre intervals.

2.2.5 Site Access

The Site will be accessed via the existing access gate to the local Far Finisklin Road which diverges from the main Finisklin Road ca. 200m west of the Ballast Quay and Finisklin Road roundabout. The Finisklin Road is connected to the N4 national road.

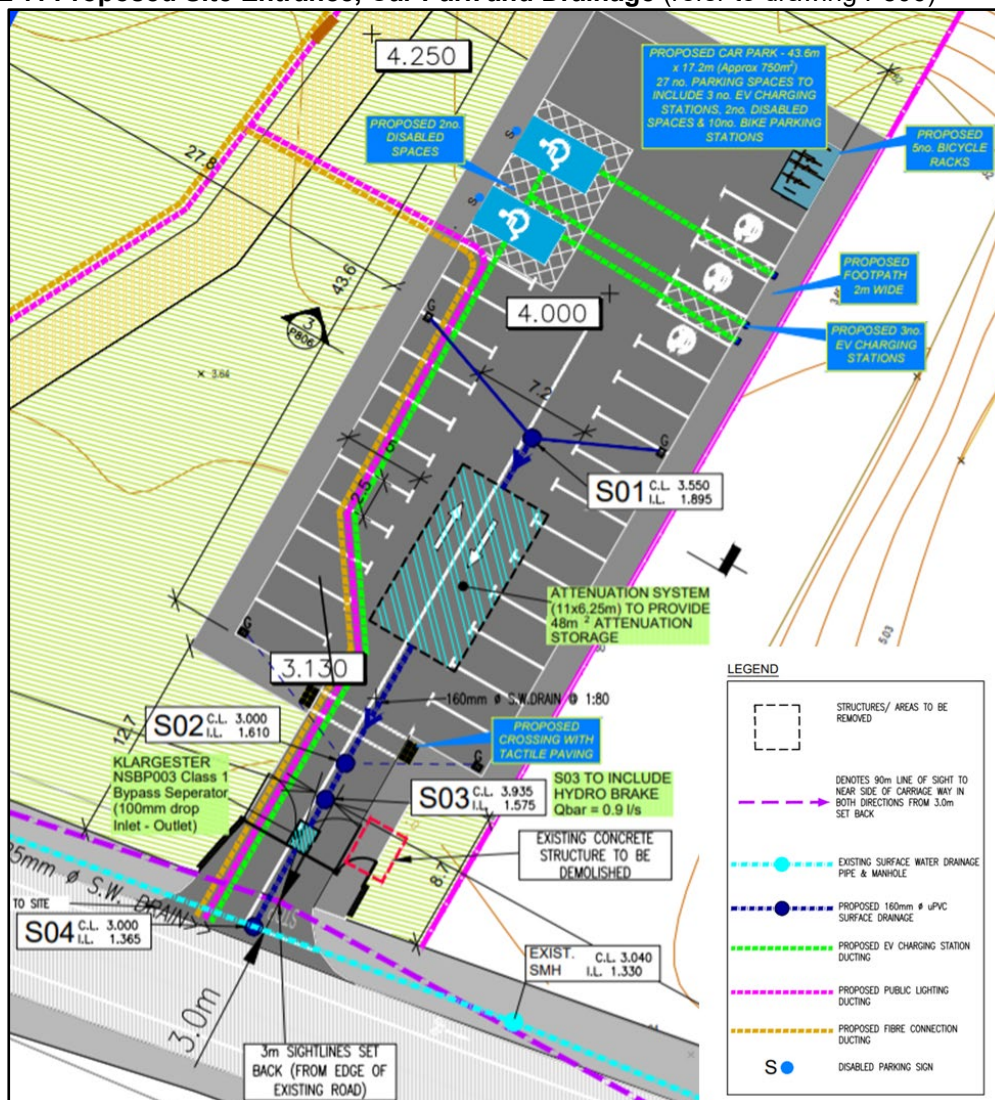
The access road will be modified during the construction works to link the carpark for the public park to the Far Finisklin Road. A 3.0 m setback for sightlines (from the edge of existing road) will allow a 90.0m line of sight in both directions. Refer to drawing P806 and the Engineering Planning report submitted with this application for further details.

An additional pedestrian entrance will be provided ca. 100m further west along the Far Finisklin Road from the existing vehicle entrance.

2.2.6 Carpark

The carpark will utilise an area of existing hardstanding that is already onsite and will cover an area of ca. 750m² to include for 27No. spaces, of which 2No. will be designated disability parking and 3No. as electric vehicle charging stations. A bicycle rack will also be available to the rear of the carpark with a capacity to store 10No. bicycles. A 2m wide footpath will run around the periphery of the carpark with a zebra crossing located on the internal road across the main entrance to allow pedestrians traverse safely, see Figure 2-7. Refer to drawing P806 submitted with this application for further details.

Figure 2-7: Proposed Site Entrance, Car Park and Drainage (refer to drawing P806)



2.2.7 Services

Stormwater from the car park will be captured by a surface water drainage system equipped with an attenuation tank. This will be diverted through a Klargester NSBP006 Class 1 bypass separator (or similar) to remove silt and hydrocarbons and a hydro break to control flow from the Site. The proposed new drainage system will connect to an existing public storm drain that discharges to the Garavogue Estuary along Deepwater Quay.

This system has been designed in accordance with Construction Industry Research and Information Association (CIRIA) C753 - The Sustainable Drainage Systems manual (CIRIA, 2015a). It has been designed for a 1 in 100-year flood event with an allowance of 30% increase in rainfall to account for climate change as specified in the Engineering Planning Report which has been submitted as part of the application.

A timber post and rail fence will be erected along the boundary of the public park. There is no proposed lighting within the park area, however, it is proposed that the park will be closed during the hours of darkness. Ducts for potential future lighting and electricity connections are provided within the design should they be required in future. Further information on the existing services can be found in the Engineering Planning Report and suite of engineering drawings submitted with this application.

2.3 Future Playground within the Park

The Park has been specifically designed to allow for the potential future development of a playground for children within the park. However, the development of this playground does not form part of these current proposals.

2.4 Pre-Construction Works

An updated ecological Site survey will be undertaken by the Ecological Clerk of Works (ECoW) in advance of the works commencing. In addition, an updated Japanese knotweed Survey and a Management Plan specific for the Proposed Development will be prepared in advance of the works commencing.

2.5 Construction Procedures

A Construction Environmental and Waste Management Plan (CE&WMP) has been prepared in accordance with current legislative requirements and best practice guidelines and is included with the application.

During the construction phase of the Proposed Development potential environmental effects will be short-term and localised. Nonetheless, all works will comply with the relevant legislation, construction industry guidelines and best practice to reduce potential environmental adverse effects.

An updated CE&WMP will be prepared by the appointed contractor and will be submitted to the Planning Authority for approval in advance of works commencing at the Site. The following guidance will be referred to and will be followed during the construction phase of the project to prevent water pollution that may occur within the area:

- Landfill Manuals – Landfill Restoration and Aftercare (EPA, 1999);
- C532 – Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors (CIRIA, 2001);
- C774 -Coastal and Marine Environmental Site Guide (Second Edition) (CIRIA, 2015b);
- C741 - Environmental Good Practice on Site (4th edition) (CIRIA, 2015c); and,
- All works will be undertaken in accordance with the 'Requirements for the Protection of Fisheries Habitat during Construction and Development' (Inland Fisheries Ireland, 2016).

The full scope and details that must be included in the CE&WMP will be refined following of additional information with regards to the proposed development.

The proposed works will take approximately 10-12 weeks onsite to complete. Working hours will generally be restricted to between 7am to 7pm Monday to Friday and between 9am to 3pm on Saturdays. Construction work will not be permitted on Sunday or at night-time except where safety concerns necessitate it or if agreed in advance with the Planning Authority.

In accordance with Section 40 of the Wildlife Act 1976, as amended by Section 46 of the Wildlife (Amendment) Act 2000, there will be no cutting, grubbing, burning or destruction by other means of vegetation growing on uncultivated land or in hedges or ditches during the nesting and breeding season for birds and wildlife, from 1st March to 31st August.

An experienced ECoW will supervise all works as required to ensure that they will be completed in line with the mitigation measures stipulated within the CE&WMP. The ECoW will either deliver or provide the resident engineer with sufficient environmental information to deliver a Site induction to personnel working on the Site.

In addition, all the proposed remediation works will be supervised onsite by appropriately qualified and competent person in relation to landfill works on behalf of SCC.

2.6 Justification for the Proposed Development

The proposed landfill capping, biowindows and bioactive trench are required to comply with condition 3.1 of CoA H0006-01. Importantly, as the overall gas remediation strategy takes account of the fact that gas passively vents to the atmosphere via the landfill ground surface where the capping material is of variable/high permeability or absent, the surface cover will not be altered significantly.

The overall design ethos for the landscape design of the proposed park is to enhance the existing area and make it available for the community with an emphasis on education and biodiversity enhancement. The landscape design for the Site takes account of the environmental setting of the Site, the landfill gas remediation strategy as well as identified ecological constraints (e.g., invasive species: Japanese knotweed).

3 METHODOLOGY

3.1 Desk Based Studies

In undertaking this EIA Screening Assessment, a detailed desk-based study was undertaken that included a review of the following information:

- Relevant legislation and guidance;
- Relevant published information pertaining to the Site and surrounding area regarding all of the stipulated EIAR topics;
- Historic environmental and ecological assessments of the Site; and,
- Information supplied by the client in relation to the Proposed Development.

3.2 Site Visits

A number of site visits have been undertaken since 2008, the most recent of which took place on the 13th of August 2021. Previous site visits included a targeted bird survey, marine mammal survey and assessment for the presence of any noxious / invasive species such as Japanese knotweed (*Fallopia japonica*) (MOR, 2020a).

In addition, quarterly and annual landfill gas, leachate, surface water and groundwater monitoring events are carried out to comply with the CoA (MOR, 2020d).

3.3 Regulatory Context

3.3.1 Environmental Impact Assessment Screening Legislative and Regulatory Context

EIA screening requirements derive from the EIA Directive (Directive 2011/92/EU as amended by Directive 2014/52/EU). The amended Directive came into force on 16th May 2017 and regulations transposing it into national legislation were signed into law on 19th July 2018 as the Planning and Development (Amendment) Act 2018 (Statutory Instrument, 2018).

To determine whether it is required to undertake an EIA for the Proposed Development, the following legislation was consulted:

- The Planning and Development Regulations, 2001 (as amended) (Statutory Instrument, 2001);
- EU Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment ('2014 EIA Directive') (European Parliament, 2014).

In addition, the following guidance documents were reviewed:

- European Commission, Environmental Impact Assessment of Projects. Guidance on Screening (EU, 2017);
- Department of the Environment, Heritage and Local Government, Environmental Impact Assessment (EIA) Guidelines for Consent Authorities regarding Sub-threshold Development (DEHLG, 2003);
- Environmental Protection Agency (EPA) Guidelines on the Information to be contained in Environmental Impact Assessment Reports Draft (EPA, 2017); and,
- Department of Housing, Planning and Local Government (DHPLG) Transposing Regulations (S.I. No. 296 of 2018) Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment (DHPLG, 2018).

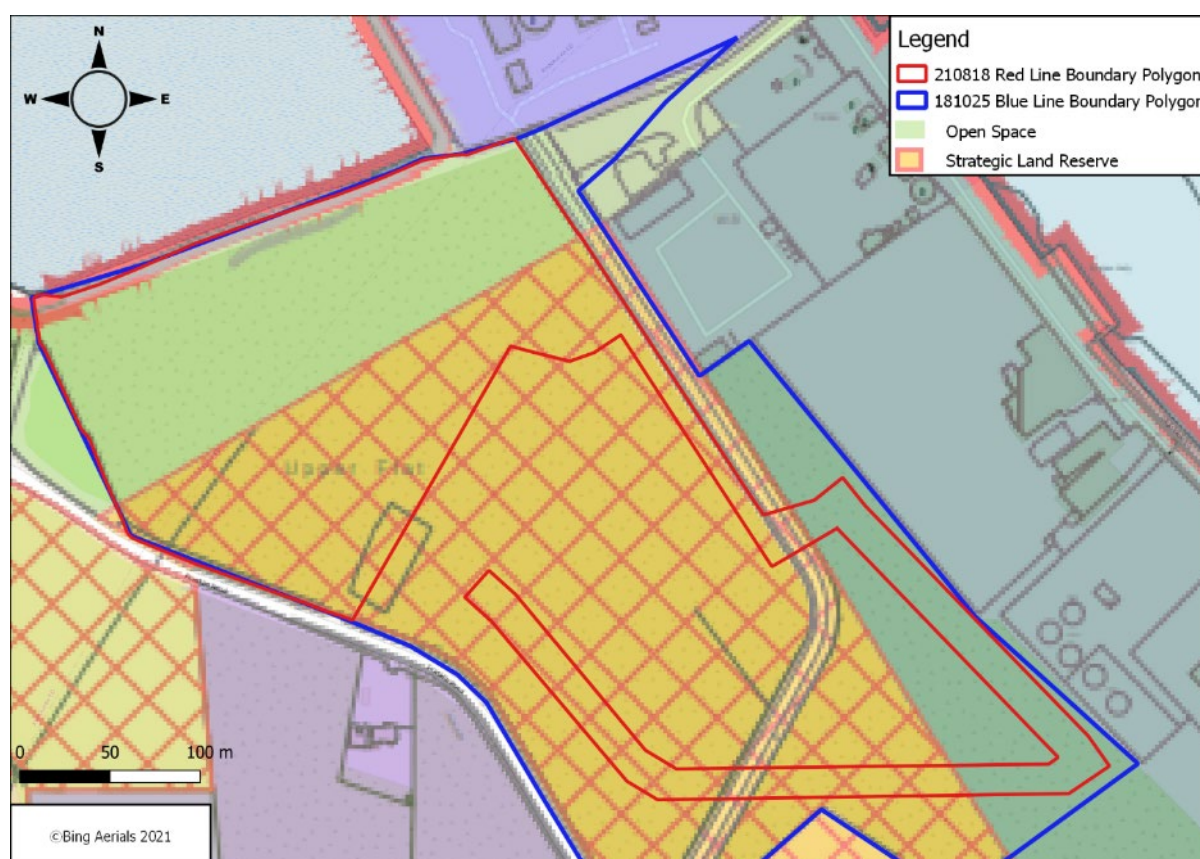
4 RECEIVING ENVIRONMENT

4.1 Planning Context

The Sligo and Environs Development Plan 2010-2016 (SEDP) was adopted in November 2009 and was due to expire in 2015, however, was further extended in 2017 through incorporation into the Sligo County Development Plan 2017-2023 (CDP). The CDP states that the policies and objectives of the SEDP will continue to apply until the adoption of a Local Area Plan for Sligo and Environs (SCC, 2017).

The majority of the landfill is zoned under the CDP (SCC, 2010) as “Strategic Land Reserve” while the northern portion is zoned as “Open Space”, see Figure 4-1. The Proposed Development of the public park will fulfil the zoning classifications of the CDP, while also enhancing the biodiversity potential of the Site, providing particular emphasis on nature conservation, ecological enhancement, and education in accordance with the guidance set out in the EPA Landfill Manuals: Restoration and Aftercare (EPA, 1999).

Figure 4-1: Excerpt from the Sligo and Environs Development Plan (SEDP) 2010-2016 – Amended Zoning Map



4.1.1 Strategic Land Reserve

The Department of Housing, Local Government and Heritage (DoEHLG) recommend three (3No.) mechanisms when managing land which is surplus to requirements. These include:

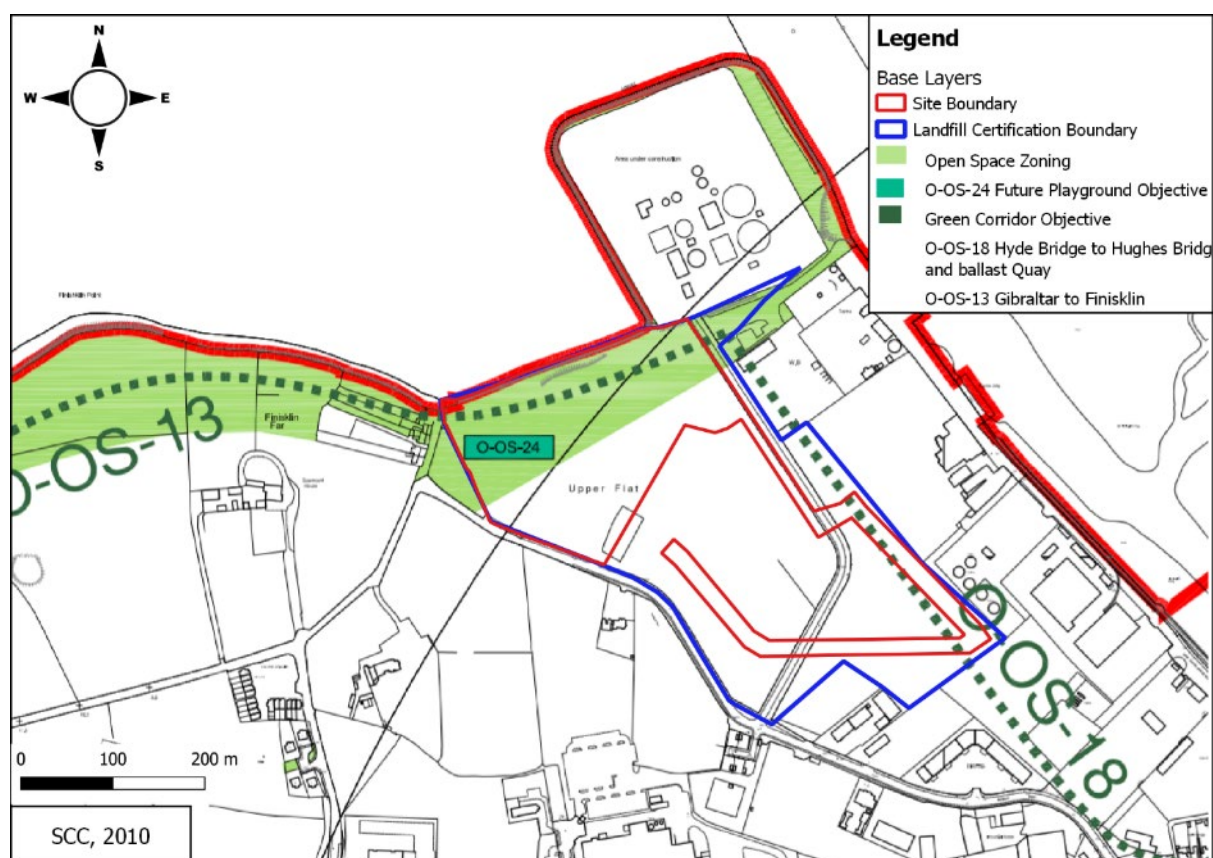
- Prioritising (phasing),
- Rezoning,
- De-zoning.

Sligo Borough and County Councils have opted to “phasing” of the southern portion of the landfill over a longer period. Meaning that this land is to be included in a Strategic Land Reserve (SLR).

4.1.2 Open space

The purpose of areas zoned as opened space is to ensure adequate provision of land for the development of parks and playgrounds. In line with this, it is the objective of Sligo Borough and County Council to develop and maintain a primary network of children’s playgrounds. In future plans for the Site, it is intended that one of the playgrounds will be located in the vicinity of the currently Proposed Development, see (O-OS-24) Figure 4-2 below. In addition, an integrated trail and greenway system for walking, cycling and jogging (also known as the green corridor objective) will be created as part of the development of the city’s park and open network, see O-OS-13 and O-OS-18 in Figure 4-2 below. This will incorporate the public park at Finisklin.

Figure 4-2: Excerpt from Sligo and Environs Development Plan (SEDP) 2010-2016 – Open Space Objectives



4.1.3 Other Proposed Developments

A planning application was submitted by Carbon Sole Group Ltd (Planning Ref 21/334) for the development of a waste gasification plant on a portion of the former Finisklin landfill. This application was refused permission by Sligo County Council on the 20th of October 2021 for three reasons, the most relevant to this application being:

“3. Under the Waste Management (Certification of Historic Unlicensed Waste Disposal and recovery activity) Regulations 2008, Sligo County Council were required to carry out a risk assessment of environmental pollution associated with the closed Finisklin Landfill. Having completed the risk assessment, a site remediation plan has been prepared and authorised by

the Environmental Protection Agency. These remediation measures are required to be implemented before any new buildings can be constructed within the site of the former landfill. It is considered, therefore, that the proposed development is premature pending the completion of these remediation measures required to address the environmental contamination risks associated with the closed landfill.”

The development proposed by Carbon Sole Group Ltd (Planning Ref 21/334) was determined by the Council to be premature on the basis that is not currently compatible with the CoA (EPA Ref: H0006-01) and as such it would conflict with the proposed development subject to this application. For these reasons, it was not considered as part of this EIAR Screening assessment.

4.2 Population and Human Health

There are currently no onsite users, the Site is bordered to the northeast by commercial/industrial facilities located on Deepwater Berths Road and the Sligo Wastewater Treatment Plant to the northeast. The Site is bounded to the south by commercial/industrial facilities and to the west by the Far Finisklin Road and northwest by a cul-de-sac known as Far Finisklin. In addition, there are a number of occupied residential properties within 50m of the Site located off the Far Finisklin Road to the south-west of the Site and one located at far Finisklin cul-de-sac off the north-western boundary of the Site.

The proposed public park will service as a new amenity space for the population of Sligo Town and the wider area which in 2016 was recorded to be 19,199 (CSO, 2016).

Further information can be found in the Former Finisklin Landfill Environmental Assessment Project and the Former Finisklin Landfill Certificate of Authorisation Application Addendum, attachment D1 of the licence application (MOR, 2011) (MOR, 2017).

4.3 Biodiversity

A Natura Impact Statement (NIS) for the Proposed Development has been submitted as part of the overall application.

The Site is within a 15km radius of fourteen (14No.) Natura 2000 sites: eight (8No.) Special Areas of Conservation (SACs) and six (6No.) Special Protection Areas (SPAs) The majority of these Natura 2000 sites were screened out from further consideration given the intervening distance and lack of impact pathways; however, given the proximity of the Site to the Cummeen Strand / Drumcliff Bay SAC and Cumeen Strand SPA, these Natura 2000 sites were considered to be at risk from the Proposed Development without the implementation of appropriate mitigation measures. However, the NIS concluded that the Proposed Development would not cause any adverse effects on any European designated sites or any of their designated features of interest provided the mitigation measures incorporated within the NIS are adhered to and that progression to Stage 3 of the Appropriate Assessment Process (i.e. Assessment of Alternative Solutions) was not considered necessary. Refer to the NIS submitted as part of the overall application for further details.

Several stands of Japanese knotweed have been identified onsite. SCC have undertaken knotweed management works over the past number of years to remediate the Site. While these management works have been effective a number of Japanese knotweed stands remain, refer to Figure 4-3.

Figure 4-3: Japanese Knotweed Distribution Map - August 2021



Based on the findings of a detailed desk-based study and the NIS, the current land-use onsite, and an updated Japanese knotweed survey undertaken by a suitably qualified MOR Ecologist, it is not considered that the Site is of significant ecological value. Furthermore, following the implementation of the mitigation measures outlined in the NIS, best practice guidelines and the recommendations of the Biodiversity Enhancement Plan submitted as part of the overall application, it can be concluded that there will be no significant adverse impacts on Natura 2000 sites or notable ecological receptors.

4.4 Land & Soil

A detailed assessment of land and soil has been undertaken and submitted to the EPA in the Former Finisklin Landfill Environmental Assessment Project and the Former Finisklin Landfill Certificate of Authorisation Application Addendum, attachment D1 of the licence application (MOR, 2011) (MOR, 2017). Refer to Section 1.2.2 above for further detail.

In summary, based on the Geographical Survey Ireland/EPA Quaternary maps a portion of the former landfill is underlain by estuarine silt and clay. It has been established from a review of historic Ordnance Survey drawings that this landfill footprint was formerly mudflats. The reclamation process was completed in phases by depositing waste material (domestic, commercial, industrial and C&D) directly on top of the existing mudflats and progressively filling into the estuary parallel to the shore (see Figure 1-2 above). Based on available information there was no associated landfill infrastructure installed at the Site, such as a landfill liner, leachate collection system, or gas collection, flaring or venting systems. Only a large rock bund was constructed to function as the outermost boundary of the Site (into the harbour) and all filling activities were undertaken on the landside of this bund (MOR, 2017).

The available information indicates that the thickness of the waste body varies from approximately 1.9m to 4.5m including the capping layer. The surface of the currently

undeveloped Site is generally flat at a few meters above sea level (c. 6 metres above ordnance datum (mAOD)). The depth of material deposited at the former landfill as part of the capping activities is visible, in particular along the boundary with Sligo Harbour where approximately 2m of fill would appear to have been deposited (MOR, 2017).

4.5 Water

Water bodies associated with the Site have been assessed in detail in the Former Finisklin Landfill Environmental Assessment Project and the Former Finisklin Landfill Certificate of Authorisation Application Addendum, attachment D1 of the CoA application (MOR, 2011) (MOR, 2017).

To outline the findings of these reports, there are multiple watercourses of note within proximity of the Site. The Garavogue Estuary is located directly adjacent to the northern boundary of the Site, and forms part of the Cummeen Strand / Drumcliff Bay SAC and the Cummeen Strand SPA. The Garavogue Estuary has a '*moderate*' water quality status under the Transitional Waterbodies WFD Status 2013-2018, and its risk of not achieving '*high*' water quality status is under '*review*' (EPA, 2021a).

The Garavogue River is located ca. 1.6km southeast of the Site, at its closest point, and flows in a westerly direction before joining the Estuary and Sligo Bay, it has a '*poor*' water quality status under the WFD and is considered '*at risk*' (EPA, 2021a). Garavogue River also forms part of the Cummeen Strand / Drumcliff Bay SAC and the Cummeen Strand SPA) (EPA, 2021a).

The Knappagh Stream is located approximately 600 m southwest of the Site flowing in a northerly direction, entering the Garavogue Estuary ca. 880 m southwest of the Site. (EPA, 2021a). However, the Knappagh Stream is not hydrologically connected to the Site and for this reason, is not considered further in this report.

The Site is located within the Bonet_SC_030 Subcatchment (Subcatchment ID: 35_10) and the Sligo Bay and Drowse Catchment (Catchment ID: 35) (EPA, 2021a). The location of the key surface water features in the vicinity of the Site are illustrated in Figure 4-4.

Figure 4-4: Watercourses in the Vicinity of the Site



4.6 Noise

There are currently no onsite users and no sources of noise on site.

Noise Sources

There are a number of sources of noise in the wider area around the Site. These would predominantly be associated with the commercial and industrial facilities to the north and northeast located on Deepwater Berths Road (e.g., WWTP) and to the south from the Finisklin Business Park. The other major contributor would be traffic on the Finisklin Road and Far Finisklin Road.

Noise Receptors

The main sensitive noise locations include a number of occupied residential properties within 50m of the Site located off the far Finisklin Road to the south-west of the Site and one located at far Finisklin cul-de-sac off the north-western boundary of the Site.

4.7 Air

EU legislation on air quality requires that member states divide their territory into zones for the assessment and management of air quality. Four national air quality zones have been designated in Ireland. Sligo is a large town of a population >15,000 and is therefore located in Zone C (EPA, 2019).

Under the Air Quality Index for Health (AQIH) criteria, the Site, in Finisklin, Co. Sligo, is located within Zone C for air quality monitoring purposes. Therefore, it is considered that average Zone C air quality is a good approximation of the background air quality for the Site.

Table 4-1 shows the air quality data in Zone C in relation to particulate matter and Nitrogen dioxide from 2017 – 2019 (epa.ie, 2021).

Table 4-1: Average Zone C 2017-2019 ($\mu\text{g}/\text{m}^3$)

Parameter	2017 Annual Mean ($\mu\text{g}/\text{m}^3$)	2018 Annual Mean ($\mu\text{g}/\text{m}^3$)	2019 Annual Mean ($\mu\text{g}/\text{m}^3$)
Particulate Matter 2.5	11.00	10.00	14.00
Particulate Matter 10	16.00	16.00	18.00
Nitrogen Dioxide	11.00	11.00	11.00

The closest EPA air quality monitoring station to the Site is in Sligo town, ca. 1.5km south of the Site. Results are included into Zone C average, which is considered to be broadly representative of background conditions at the Site.

Closed landfills emit landfill gas which can be made up of Methane, Carbon Dioxide, Hydrogen, Oxygen and Nitrogen containing compounds. Landfill gas monitoring has been undertaken in and around the Site since 2009. Based on findings from the 2017 gas monitoring sampling events, the following conclusions were made in relation to the landfill (MOR, 2017):

- Based on recorded results there is no immediate risk to any offsite properties specifically those located along the northern end of Deepwater Berths Road due to the identified landfill gas concentrations.
- The risk posed by the presence of methane and carbon dioxide from the Site is variable. The southern parts of the landfill are at lower risk due to the age of the landfill grading to the northern parts, more recently filled areas which represents a moderate to higher risk associated with gas at this boundary.
- The results of the internal landfill gas surveys confirm that gas has been migrating offsite and entering properties via service ducts and drains where the highest levels were recorded within properties adjoining the northeast of the Site. There were no detections of gas within any of the offsite buildings.
- A potential risk to offsite properties to the northwest of the Site associated with offsite migration, however, this is considered low risk due to the geological setting of the Site.

4.8 Climate

Climate change is recognised as one of the most serious global environmental problems. The EU target for 2030 is to achieve a 40% reduction in domestic greenhouse gas (GHG) emissions compared to 1990, with reductions in the Emissions Trading Scheme (ETS) and non-ETS sectors amounting to 43% and 30% by 2030 respectively, compared to 2005 (Council Regulation 2018/842) (DCCAE, 2020). Ireland's National Policy targets CO₂eq emissions reduction by 80% by 2050 compared to 1990 levels across all sectors (DCCAE, 2019).

The third most significant GHG is methane (CH₄). Methane has a global warming potential of 25, i.e., an emission of 1 tonne of CH₄ has the same global warming potential as 25 tonnes of CO₂ over a 100-year period (EPA, 2021b). Approximately 40% of all methane is due to natural unmanaged processes (e.g., the methane cycle) while 60% is as a result of human activities, one of the main contributors being landfills (EPA, 2020b). It was noted in Ireland's National Inventory Report 2020, that CH₄ emissions from waste decreased from 8.9 per cent share of total methane emissions in 1990 to 5.4 per cent share in 2018 (1,318.1 kt CO₂ eq to 692.7 kt

CO₂ eq). This decrease was attributed to improved management of landfill facilities (EPA, 2020a).

The 2017 assessment of this landfill concluded that the risk posed by the presence of methane and carbon dioxide from the Site was variable. The southern, older parts of the Site were at a lower risk grading to the northern, more recently filled areas that were deemed to be at a moderate to high risk. In addition, the western part of the landfill is underlain by clayey soil thereby limiting the potential for widespread gas migration from the Site in this area. It was determined that there would be a greater risk of gas migration to the south and east as the landfill material continues beyond the landfill boundary in these areas (MOR, 2017).

The landfill material in the southern part of the Site has been in place for over 44 years. The most recent monitoring of the landfill (02/09/2020 – 04/09/2020) found that results were consistent with previous monitoring events and thus the Site is not actively generating landfill gas (MOR, 2020d), however, landfill gas including methane currently passively vents to the atmosphere. Based on results of numerous different investigations it can be confirmed that the landfill gas identified at the former landfill presents no immediate risk to any offsite properties specifically those located along the northern end of Deepwater Berths Road.

The Proposed Development will reduce the concentration of methane vented to the atmosphere as described in section 2.2.1

4.9 Material Assets

There are a number of existing services around the Site, including a storm sewer, watermain, electrical ducting and an overhead telecom line located on the Far Finisklin Road to the south of the Site. More detail regarding the Site services can be found in the Former Finisklin Landfill Environmental Assessment Project, attachment D1 of the licence application (MOR, 2011) and the Engineering Planning Report submitted with this application.

4.10 Cultural Heritage

Cultural heritage assesses the potential for archaeological, architectural and cultural heritage on or in the area of the Site. Given the Site was a former landfill that was constructed on former mudflats there are no historical monuments on or adjacent to the Site. There are some structures listed within a 1km radius, these have been listed below in Table 4-2 and Table 4-3 (National Monuments Service, 2021).

Table 4-2: Historic monuments in the locality

Reference No.	Class	Townland	Direction and Proximity to Site approx.
SL014-054	Barrow – ring – barrow	Finisklin (Carbury by.)	476m North West
SL014-055	Ringfort - rath	Finisklin (Carbury by.)	431m North West
SL014 – 057	Enclosure	Knappagh More	692m South West
SL014- 058	Enclosure	Knappagh More	685m South West
SL014 – 060	Fulacht fia	Rathedmond	640m South
SL014 – 061	Fulacht fia	Rathedmond	640m South

Table 4-3: Protected structures in the locality

Reference No.	Class	Townland	Direction and Proximity to Site (m) approx.
32322003	Ursuline Convent School	Finisklin (Carbury by.)	982m South East
32322005	Batchelors/Davitts Store/Warehouse	Finisklin (Carbury by.)	948m South East

4.11 Landscape & Visual

The vegetative cover of the landfill varies. The areas of the landfill in which the EPA require additional capping works are overgrown with weeds, grasses, shrubs, bushes and trees (MOR, 2011).

The western boundary of the former landfill has been landscaped with a stone wall and a line of trees with some commercial/industrial developments also present beyond the landfill boundary to the south, while the northern boundary bordering the estuary is protected with rock armour with the exception of the section that forms the boundary with the WWTP. Much of the perimeter of the landfill along the eastern boundary has been redeveloped with the construction of a number of commercial/industrial developments along Deepwater Berths Road on the northern boundary. A road has also been constructed through the landfill to provide access to the WWTP that was built to serve the needs of Sligo Town (MOR, 2011).

The Site has been classified by the County Council as a sensitive rural landscape and a visually vulnerable area. Sligo has a varied natural landscape with spectacular views of the limestone mountains Ben Bulbin (see Figure 4-4) and Ben Wislin, and a diverse coastline including low-lying cliffs, indented shoreline and sandy beaches (SCC, 2017).

Figure 4-5: View of Ben Bulbin from the Site



5 EIA SCREENING

From an EIA perspective, all Proposed Developments can be placed in one of the following two groups:

- Those that exceed the regulatory thresholds and require a mandatory EIA; and,
- Those that are sub-threshold and must be assessed on a case-by case basis to determine if they are likely to have significant effects on the environment.

5.1 Mandatory EIAR Screening

The activities within Part 1 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) were considered in relation to the Proposed Development are presented in Table 5-1.

Table 5-1: Screening for Part 1 of Schedule 5

Class		Applicability	Screening
1(9)	<i>“Waste disposal installations for the incineration, chemical treatment as defined in Annex IIA to Directive 75/442/EEC under heading D9, or landfill of hazardous waste (i.e., waste to which directive 91/689/EEC applies”</i>	As per condition 1.2 of the CoA <i>“No waste shall be accepted at the closed landfill unless authorised by this certificate of authorisation”</i> . In addition to this, although the Site is a landfill that has received waste in the past, the proposed works are for the remediation of such and do not align with the activity outlined in Part 1 (9) of Schedule 5.	EIA Not Required
1(10)	<i>“Waste disposal installations for the incineration or chemical treatment as defined in Annex IIA to Directive 75/442/EEC under heading D9, of non-hazardous waste with a capacity exceeding 100 tonnes per day.”</i>	As above 1(9)	EIA Not Required
1(21)	<i>“Any change to or extension of projects listed in this Annex where such a change or extension in itself meets the thresholds, if any, set out in this Annex.”</i>	It is considered that the Proposed Development which include the installation of the biowindows and public park does not constitute a change or extension which will exceed the aforementioned threshold in Part 1 (9) or 1(10). There are no activities listed within Part 1 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) which relate to the Proposed Development. The Proposed Development subject to this EIA Screening Report, therefore, does not fall within the scope of activities listed in Part 1 of Schedule 5 and a mandatory EIA, as classified under Annex I, is not required.	EIA Not Required

The activities within Part 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) which relate to the Proposed Development are presented in Table 5-2.

Table 5-2: Screening for Part 2 of Schedule 5

Class		Applicability	Screening
2(10) (b) (ii)	Construction of a carpark providing more than 400 spaces, other than a carpark provided as part of, and incidental to the primary purpose of, a development.	The Proposed Development includes a carpark including 27No. spaces, of which 2No. will be designated disability parking and 3No. as electric vehicle charging stations. This car park is also incidental to the proposed public park. This does not meet the threshold for and EIA and therefore a mandatory EIA, as classified under Annex I, is not required.	EIA Not Required
2(10) (b) (iv)	“Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere. (In this paragraph, “business district” means a district within a city or town in which the predominant land use is retail or commercial use.)”	The footprint of the Proposed Development will cover a Site area of ca. 6.27ha which below the threshold of 10ha in the case of other built-up areas and further consideration of the impacts within an EIA are not considered necessary in this regard.	EIA Not Required
2(10) (dd)	“All private roads which would exceed 2000 metres in length.”	The Proposed Development includes for a walking track of 1000m in length and an access road to the car park ca. 15m in length and therefore does not exceed the threshold set out in Part 2 10 (dd) of Schedule 5	EIA Not Required

Class		Applicability	Screening
2 (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”	The Proposed Development is for the remediation of the closed landfill Site and therefore there will be no waste materials accepted at the Site. In addition to this as per condition 1.2 of the CoA “No waste shall be accepted at the closed landfill unless authorised by this certificate of authorisation”. Thus, the Proposed Development does not fall within the scope of activities listed in Part 2 (11)(b) an EIA is not required.	EIA Not Required
2 (13)(a)	<p>“Changes, extensions, development and testing</p> <p>(a) Any change or extension of development already authorised, executed or in the process of being executed (not being a change or extension referred to in Part 1) which would:-</p> <p>(i) result in the development being of a class listed in Part 1 or paragraphs 1 to 12 of Part 2 of this Schedule, and</p> <p>(ii) result in an increase in size greater than –</p> <ul style="list-style-type: none"> - 25 per cent, or - an amount equal to 50 per cent of the appropriate threshold, whichever is the greater” 	As per condition 1.2 of the CoA “No waste shall be accepted at the closed landfill unless authorised by this certificate of authorisation”. In addition to this, it is considered that the Proposed Development which include the installation of the biowindows and public park will not increase in size and so an assessment in the form of an EIA is therefore not required.	EIA Not Required
2 (13)(c)	“Any change or extension of development being of a class listed in Part 1 or paragraphs 1 to 12 of Part 2 of this Schedule, which would result in the demolition of structures, the demolition of which had not previously been authorised, and where such demolition would be likely to have significant effects on the environment, having regard to the criteria set out under Schedule 7.”	Demolition of a 4m ² single story concrete block hut to allow for the entrance to the car park will be necessary. However, due to the small size of the building the environmental impacts are deemed to be negligible and an assessment in the form of an EIA is therefore not required.	EIA Not Required
2 (14)	“Works of Demolition Works of demolition carried out in order to facilitate a project listed in Part 1 or Part 2 of this Schedule where such works would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.”	As above 2 (13)(c)	EIA Not Required

The Proposed Development does not result in development of a class listed in Part 1, or Part 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended). Therefore, the Proposed Development does not require a mandatory EIA.

5.2 Sub-threshold Screening for EIAR

Developments which correspond to Part 2 project types but are below the given threshold must be screened to determine whether they require an EIAR or not. This is done by consideration of criteria set out in Schedule 7 and Schedule 7a of the Planning and Development Regulations, 2001 (as amended).

While the mandatory requirements for developments are relatively straightforward, being based on readily observable and definable quantum's of type and scale, the discretionary (or sub-threshold) requirements are based on an assessment of the likely significant environmental effects of the Project and will naturally vary on a case by case basis and require greater investigation and diligence in appraisal and precise determination of depending on the complexity of the development and the proposed receiving environment.

Schedule 7 of the Planning and Development Regulations, 2001 (as amended) sets out the criteria for assessing whether or not a project will have "likely" and "significant" effects on the environment, in which case an EIA is also required. These criteria include the following:

- Characteristics of Proposed Development;
- Location of Proposed Development; and,
- Characteristics of potential impacts.

These criteria, listed in Table 5-3, were considered for the Proposed Development under the topics recommended in EIAR guidance documents.

Table 5-3: EIAR Screening Criteria as per Schedule 7 of the Planning and Development Regulations, 2001 (as amended)

1.Characteristics of Proposed Development
<p>The characteristics of Proposed Development, in particular –</p> <ol style="list-style-type: none"> a) the size and design of the whole of the Proposed Development, b) cumulation with other existing development 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, c) the nature of any associated demolition works, d) the use of natural resources, in particular land, soil, water and biodiversity, e) the production of waste, f) pollution and nuisances, g) 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 h) the risks to human health (for example, due to water contamination or air pollution).
2. Location of Proposed Development
<p>The environmental sensitivity of geographical areas likely to be affected by the Proposed Development, with regard to -</p> <ol style="list-style-type: none"> a) the existing and approved land use, b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground, c) the absorption capacity of the natural environment, paying particular attention to the following areas: <ol style="list-style-type: none"> I. wetlands, riparian areas, river mouths;

- II. coastal zones and the marine environment;
- III. mountain and forest areas;
- IV. nature reserves and parks;
- V. areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;
- VI. 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;
- VII. densely populated areas;
- VIII. landscapes and sites of historical, cultural or archaeological significance.

3.Types and characteristics of potential impacts

The likely significant effects on the environment of Proposed Development in relation to criteria set out under paragraphs 1 and 2 (above), with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—

- a) the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),
- b) the nature of the impact,
- c) the transboundary nature of the impact,
- d) the intensity and complexity of the impact,
- e) the probability of the impact,
- f) the expected onset, duration, frequency and reversibility of the impact,
- g) the cumulation of the impact with the impact of 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, and
- h) the possibility of effectively reducing the impact.

5.2.1 Characteristics of the Potential Development

Table 5-4 details the development characteristics criteria, as set out in Schedule 7 of the Planning and Development Regulations, 2001 (as amended), considered and provides an assessment relating to the same.

Table 5-4: Characteristics of the Proposed Development

Characteristics of Proposed Development, in particular:	Screening Assessment Summary / Conclusion	EIA Screened In / Out
<p>a) The size and design of the whole of the Proposed Development</p>	<p>The footprint of the Proposed Development will cover a combined Site area of ca. 6.27ha which can be considered a small-scale development.</p> <p>The proposed remedial works will include the installation of</p> <ul style="list-style-type: none"> • The Final Cell - one (1No.) biowindow sized 12m x 12m. • The Northern Cell - one (1No.) biowindow sized 20m X 20m. • The Middle Cell - three (3No.) biowindows 10m x 10m at the surface. • The Southern Cell - one (1No.) biowindow 10m x 10m will be constructed. • The Northern/Middle Cell – One (1No.) bioactive trench sized 200m x 4m x 4m to be installed. <p>The proposed public park and landscaping works are to form a considered network of routes which harmonise the existing regenerating landscape, therefore with the exception of the walking track and signage, development works are minimal. The landscaping includes for the provision of a ca. 1000m walking track.</p>	<p>Screened out</p>
<p>b) The cumulation with other existing development and or development the subject of consent for Proposed Development for the purposes of section 172(1)(A) (b) of the Act and/or development the subject of any development consent for the purpose of the Environmental Impact Assessment Directive by or under any other enactment.</p>	<p>The Proposed Development, in combination with the existing Site, is likely to result in positive impacts; reducing the potential for migration of landfill gases offsite, regeneration of Willow and the provision of a new public park which may be used for recreational and educational purposes.</p> <p>The construction phase will include the demolition of a 4m² single story concrete block hut to allow for the entrance to the car park. However, due to the small size of the building the environmental impacts are deemed to be insignificant.</p> <p>Considering the nature of the Proposed Development and the proximity to a predominantly industrial environment, adherence to the mitigation measures listed within the CE&WMP will prevent any significant effects on the environment during either the construction or operation phase.</p> <p>The public park at Finisklin coupled with the other proposed amenity developments set out in the Sligo CDP will have an overall positive impact on the wider Sligo area, see section 4 for more information.</p> <p>The cumulative impact is deemed to be negligible, therefore an EIA is not warranted.</p>	<p>Screened out</p>

Characteristics of Proposed Development, in particular:	Screening Assessment Summary / Conclusion	EIA Screened In / Out
c) The nature of any associated demolition works	A 4m ² building is to be demolished, however, due to the small scale no significant impacts are predicted, therefore an EIA is not warranted.	Screened out
d) The use of natural resources, in particular land, soil, water and biodiversity	<p>The installation of biowindows/ bioactive trench will require excavation to depths of ca. 2.0m, through the existing clay capping at the Site. The stripped soil will be relayed over the biowindow/bioactive trench surface once installed. The excavated clay capping material will be reused onsite, to increase the capping thickness in the north-western portion of the Site. The excavations will cease once the clay capping layer is breached; therefore, waste materials will not be excavated as part of the Proposed Development. These works have been designed so that no importation of capping material or export of soil will be required.</p> <p>For these works to be carried out, clearance of existing trees will be required in certain areas of the Site. These works will be supervised by a suitably qualified ECoW and completed in accordance with Section 40 of the Wildlife Act 1976, as amended by Section 46 of the Wildlife (Amendment) Act 2000, there will be no cutting, grubbing, burning or destruction by other means of vegetation growing on uncultivated land or in hedges or ditches during the nesting and breeding season for birds and wildlife, from 1st of March to 31st of August.</p> <p>The walking track is designed to ensure minimal disturbance to the Site, with only minor excavations required i.e., to a maximum depth of 200 mm below ground level. Topsoil excavated will be re-used onsite for landscaping purposes. Fill materials will comprise of 100mm clause 804 hardcore only.</p> <p>The use of natural resources is deemed to be negligible, therefore an EIA is not warranted.</p>	Screened out
e) The production of waste	<p>The construction phase may generate plastic wrapping, strips, containers, polystyrene and wooden pallets etc. associated with the components of the biowindow/bioactive trench, self-binding gravel (for the walking track) and features of the carpark. All waste generated will be handled in accordance with the CE&WMP.</p> <p>The works have been designed so that no export of waste soil will be required. The volume of waste will be minimal. Nevertheless, waste will be collected and segregated onsite before being removed off-site and recycled or disposed of at a suitably licensed waste facility.</p> <p>The production of waste materials is deemed to be negligible, therefore an EIA is not warranted.</p>	Screened out
f) Pollution and Nuisances	<p>Ahead of construction works proceeding, pollution avoidance and control measures will be required to ensure no contaminants directly enter the adjoining Garavogue Estuary. These pollution avoidance and control measures will be set out in the CE&WMP and take cognizance of the following guidelines;</p> <ul style="list-style-type: none"> Landfill Manuals – Landfill Restoration and Aftercare (EPA, 1999), 	Screened out

Characteristics of Proposed Development, in particular:	Screening Assessment Summary / Conclusion	EIA Screened In / Out
	<ul style="list-style-type: none"> • CIRIA C741 Environmental Good Practice on Site (4th edition) (CIRIA, 2015). • C532 – Control of Water Pollution from Construction, Guidance for Consultants and Contractors (CIRIA, 2001); • Guidelines on The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (NRA, 2010); and, • BS 5228-1 + A1:2014: Code of Practice for noise and vibration control on construction and open sites- Part 1: Noise (BSI, 2009) and Part 2 Vibration (BSI, 2009). • C774 - Coastal and Marine Environmental Site Guide (Second Edition) (CIRIA, 2015b) • Guidance for Invasive non-native species (National Road Authority, 2010). <p>In addition, a set-back distance of 5m minimum from the Garavogue Estuary will be in place throughout the construction phase.</p> <p>Odours associated with landfill gas (primarily ammonia and hydrogen sulfide) may present a temporary nuisance during the installation of the biowindows/bioactive trenches. However, this will be short term in nature, as odour will likely only be present when the capping has been breached. Once the biowindows/bioactive trench are installed, the odour will dissipate. Given the location of the Site, any potential odours encountered will not present a nuisance to the locality.</p> <p>In general terms, construction works will be small scale, subject to the standard health and safety controls and will be short-term in nature.</p> <p>The public park will increase noise in the area due to the presence of the general public using the park and additional traffic on the Far Finisklin Road accessing the car park. However, the park will be closed after the hours of darkness to prevent noise at night and anti-social behaviour.</p> <p>There are no significant pollution/nuisances associated with the operational phase of the development.</p> <p>Therefore, a further assessment on potential impacts of pollution and nuisances in the context of an EIA is not warranted.</p>	
<p>g) 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.</p>	<p>Potential risks associated with the construction phase include uncontrolled release of pollutants entering the Garavogue Estuary (i.e., the adjacent Natura 2000 Sites (Cummeen Strand / Drumcliff Bay SAC and Cummeen Strand SPA).</p> <p>The pollution avoidance and control measures as outlined above and set out in the CE&WMP should provide sufficient protection from uncontrolled release of pollutants to the Garavogue Estuary. In addition, all the proposed remediation works will be supervised onsite by appropriately qualified and competent person on behalf of SCC. The competent person should be able to monitor landfill gas levels throughout the remedial works. In the unlikely event that elevated concentrations of landfill gas are encountered, then all works</p>	<p>Screened out</p>

Characteristics of Proposed Development, in particular:	Screening Assessment Summary / Conclusion	EIA Screened In / Out
	<p>will cease to allow for the dissipation of gases until a safe level has returned.</p> <p>The biowindows and bioactive trench receive passively vented landfill gas from underlying waste, presenting variable routes for the movement of gas and in turn prevents lateral gas migration. Consequently, this reduces the risk to neighbouring properties and site users in the long term and ultimately minimises global warming potential (refer to Section 4.8 Climate for further information).</p> <p>Construction risks are not considered of a scale, nature or severity of likelihood that would warrant an EIA. Therefore, a further assessment on potential impacts in the context of an EIA is not warranted.</p>	
<p>h) the risks to human health (for example, due to water contamination or air pollution).</p>	<p>The Site is located within an area of low population density, so the risk to human health during the construction phase to residents would be negligible. There would be risks to human health (workers) during the construction phase associated with landfill gas, encountering waste materials/leachate, noise and dust.</p> <p>A CE&WMP will be prepared for the proposed works to ensure all risks to human health will be controlled onsite during the construction works. Furthermore, the works will be overseen by appropriately qualified and competent persons on behalf of SCC.</p> <p>Once operational the biowindows and bio active trench will reduce the risk of landfill gas build up and migration off site thereby further reducing the risk to neighbouring properties and site users.</p> <p>The Proposed Development will not likely create significant risk to human health and on the contrary will reduce the risk in the long term and therefore an EIA is not required on this basis.</p>	<p>Screened out</p>

5.2.2 Location of Proposed Development

A description of the location of the Proposed Development, as set out in Schedule 7 of the Planning and Development Regulations, 2001 (as amended), with regard to the environmental sensitivity of the geographical area likely to be affected is required. Table 5-5 details the criteria considered and provides an assessment relating to the same.

Table 5-5: Location of Proposed Development.

The environmental sensitivity of geographical areas likely to be affected by the Proposed Development, with particular regard to -	Screening Assessment	EIA Screened In / Out
a) the existing and approved land use	<p>The EPA issued a CoA, number H0006-01, for the closed landfill in Finisklin on the 13th of September 2018.</p> <p>The proposed works will ensure compliance with the Certificate issued by the EPA.</p> <p>The majority of the Site is zoned under Sligo County Development Plan 2017-2023 as “Strategic Land Reserve” while the northern portion is zoned as “Open Space”.</p> <p>The proposed remedial works will permit the Site to fulfil its zoning objectives by allowing the safe use of the Site as a land reserve and open space.</p> <p>The Proposed Development is designed to fulfil the zoning classifications and therefore further assessment on potential impacts in the context of an EIA is not warranted.</p>	Screened out
b) the relative abundance, quality and regenerative capacity of natural resources (including soil, land, water, biodiversity) in the area and its underground	<p>The former land-use of the Site is that of an unlicensed landfill. The proposed remedial and development works will enhance the Site from a land-use and amenity perspective. It will permit natural regeneration whilst also providing a tool for environmental education to the locality.</p> <p>Development of this area will increase the quality and regenerative capacity of natural resources in the area providing a minor positive impact. No significant impacts related to the Proposed Development are predicted, therefore an EIA is not warranted.</p>	Screened out
c) the absorption capacity of the natural environment, paying particular attention to the following areas: (i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment; (iii) mountain and forest areas; (iv) nature reserves and parks; (v) areas classified or protected under	<p>The Proposed Development does not contain or is not likely to affect any of the criteria/ areas: (vii) and (viii). An examination of the potential effects on the remaining criteria is undertaken below:</p> <p>(i) & (ii) Appropriate pollution prevention control and disturbance measures will be needed to avoid or negate potential impacts. A CE&WMP would be sufficient to ensure careful design, impact assessment and mitigation measures to prevent adverse effects to these zones. Therefore, further assessment on potential impacts in the context of an EIA is not warranted.</p> <p>(iii) Tree maintenance works including the clearance of overgrown dense Willow/scrub where required will be undertaken, however, consideration will be given to the retention of areas of regenerating stands of Willow. In addition, a Japanese knotweed Management program will be implemented to ensure the invasive species is managed appropriately at the Site. These measures will enhance existing trees/vegetation within the Site.</p> <p>The landscape is designed to enhance visitor’s views towards the surrounding mountains in the area thereby enriching the overall</p>	Screened out

The environmental sensitivity of geographical areas likely to be affected by the Proposed Development, with particular regard to -	Screening Assessment	EIA Screened In / Out
<p>(vi) legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and; 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;</p> <p>(vii) densely populated areas;</p> <p>(viii) landscapes and sites of historical, cultural or archaeological significance.</p>	<p>visitor's experience. Further assessment on potential impacts in the context of an EIA is not warranted.</p> <p>(iv) The majority of the Site is zoned under Sligo County Development Plan 2017-2023 as "Strategic Land Reserve" while the northern portion is zoned as "Open Space". The Proposed Development will fulfil the zoning classifications for the Site. For further information see section 4.</p> <p>(v) An Appropriate Assessment (AA) has been undertaken in relation to the Proposed Development and an NIS will be submitted with the application to An Bord Pleanála. The NIS concluded that provided that the design and mitigation measures are adhered to that the Proposed Development would not result in any adverse impacts on any Natura 2000 sites. The construction works will be undertaken to avoid the potential for water pollution and will ensure that there will be no significant impact on the Annex I or II species for which these sites are designated.</p> <p>(vi) The Garavogue Estuary is adjacent to the Site and has a 'moderate' water quality status under the Transitional Waterbodies WFD Status 2013-2018, and its risk of not achieving 'high' water quality status is under 'review.'</p> <p>The Knappagh Stream is located approximately 600 m southwest of the Site. According to the River WFD Status 2013-2018, the water quality of the Knappagh Stream is 'unassigned' and its risk of not achieving a 'high' water quality status is under 'review' (EPA, 2021a). The stream flows in a northerly direction, entering the Garavogue Estuary ca. 880m southwest of the Site.</p> <p>During the construction phase all works will be completed in accordance with relevant guidance documents which will include a set-back distance of 5m. During the operational phase there will be no direct discharges to the receiving waterbodies. Therefore, the potential for impact on the receiving waterbodies is considered to be negligible and will not impact their ability to achieve good status under the WFD.</p> <p>There are no wastewater discharges proposed as part of the Proposed Development. For further information see section 4.</p> <p>An EIA is not required to ensure careful design, assessment and mitigation.</p> <p>vii) There are currently no onsite users, the Site is bordered to the northeast and south by commercial/industrial facilities. The Far Finisklin Road and Finisklin Road are located to the west and south-west of the site where there are a small number of occupied residential properties. For further information see section 4.</p> <p>viii) The site has been classified by the County Council as a sensitive rural landscape and a visually vulnerable area. There are no archaeological, architectural and cultural heritage monuments on or adjacent to the site. For further information see section 4.</p>	

5.2.3 Types and characteristic of potential impacts

Table 4-4 details the screening assessment relating to the types and characteristics of potential impacts, as set out in Schedule 7 of the Planning and Development Regulations, 2001 (as amended).

Table 5-6: Characteristics of Potential Impact

The likely significant effects on the environment of Proposed Development taking into account:	Screening Assessment	EIA Screened In / Out
a. the magnitude and spatial extent of the impact (for example, geographical area and size of the affected population),	<p>The proposed remedial works will include the installation of;</p> <ul style="list-style-type: none"> • The Final Cell - one (1No.) biowindow sized 12m x 12m. • The Northern Cell - one (1No.) biowindow sized 20m X 20m. • The Middle Cell - three (3No.) biowindows 10m x 10m at the surface. • The Southern Cell - one (1No.) biowindow 10m x 10m will be constructed. • The Northern/Middle Cell – One (1No.) bioactive trench sized 200m x 4m x 4m to be installed. <p>The proposed public park and landscaping works are to form a considered network of routes which harmonise the existing regenerating landscape, therefore with the exception of the walking track and signage development works will be minimal. The landscaping includes for the provision of a 1000m walking track.</p> <p>The combined footprint of the Proposed Development will cover a combined site area of ca. 6.27 ha, which is a small-scale development. Given the location of the Site, it is considered that the magnitude and spatial impact will likely be negligible if works are completed in accordance with planning and construction procedures.</p>	Screened out
b. the nature of the impact,	<p>Adverse environmental impacts are considered most likely to occur through contaminants entering the surface or groundwater in close proximity to the Site or encountering odours/landfill gas during the construction phase of the development, but the duration of such effects will be short-term in nature.</p> <p>The NIS concluded that, provided the design and mitigation measures are adhered to the Proposed Development would not result in any adverse impacts on any Natura 2000 sites.</p> <p>There were no potential adverse environmental impacts identified during the operational phase. The Site will be enhanced through the diminishing landfill gas emissions and the landscape design.</p> <p>Given the implementation of appropriate mitigation measures and standard best practice procedures, further assessment on potential impacts in the context of an EIA is not warranted.</p>	Screened out
c. the transboundary nature of the impact,	There will be no transboundary impacts due to the Proposed Development.	Screened out

The likely significant effects on the environment of Proposed Development taking into account:	Screening Assessment	EIA Screened In / Out
d. the intensity and complexity of the impact,	<p>A Tier 3 Environmental Risk Assessment was completed at the Site which included numerous monitoring programmes (see section 1.2.2). The potential environmental issues at the Site have been identified and quantified accurately. The proposed remedial works present a targeted approach utilising a suitable site-specific technique.</p> <p>Extensive consultation took place with the EPA regarding this remediation strategy through several letters, reports, meetings and site visits. Enhancement measures will be included in the design to offset the clearance of willow dominant scrub within the footprint of the required capping works as stipulated by the EPA in the CoA, refer to the Amenity Area Layout submitted with this application.</p> <p>The works are to be supervised by an appropriately qualified and competent person to ensure the implementation of appropriate mitigation measures and standard best practice measures during construction.</p> <p>No further assessment in the context of an EIA is warranted.</p>	Screened out
e. the probability of the impact,	<p>Given the nature of the Site (i.e., closed landfill) and the proximity of the Site to watercourses and Natura 2000 sites, the probability of any impacts has the potential to be moderate in the absence of appropriate design, control and mitigation measures.</p> <p>However, given the implementation of appropriate mitigation measures and standard best practice measures to be set out in the CE&WMP no significant impact will occur. No further assessment in the context of an EIA is warranted.</p>	Screened out
f. the expected onset, duration, frequency and reversibility of the impact,	<p>In the medium term (5-10 Years) it is expected that the remedial works will reduce the methane emission levels at the Site and cease offsite migration. It is proposed that an appropriately qualified and competent person will undertake quarterly monitoring at the Site in compliance with CoA H0006-01. The effects on methanogenesis at the Site will reduce methane emissions from the closed landfill and will be irreversible, which is a positive impact.</p> <p>Due to the low-key impact and regenerative nature of the Proposed Development, the public park and landscaping will remain in place until the CoA considers necessary.</p> <p>No further assessment in the context of an EIA is warranted.</p>	Screened out
g. the cumulation of the impact with the impact of other existing and/ or development the subject of a consent for Proposed Development for the purposes of section 172 (1 A) (b) of the Act and/ or development subject of any development consent for the purposes of	<p>The Proposed Development, in combination with the existing Site and the plans set out in section 4.1, is likely to result in a positive impact from a reduction in methane gas emissions, regeneration of Willow and the provision of a new public park which may be used for recreational and educational purposes.</p> <p>Considering the nature of the Proposed Development in proximity to an industrial environment, adherence to the mitigation measures listed within the CE&WMP it is concluded there will not be any significant in-combination contribution by the Proposed Development to the environment during either the construction or operation phase.</p> <p>No further assessment in the context of an EIA is warranted.</p>	Screened out

The likely significant effects on the environment of Proposed Development taking into account:	Screening Assessment	EIA Screened In / Out
Environmental Impact Assessment Directive by or under any other enactment,		
h. the possibility of effectively reducing the impact.	Mitigation through design coupled with implementation of specific construction mitigation measures, adherence to a strict code of practice and implementation of a tailored Construction Environmental and Waste Management Plan (CE&WMP) will avoid direct and indirect impacts related to noise, air quality, water quality and biodiversity. No further assessment in the context of an EIA is warranted.	Screened out

Table 5-7 below details the location for information to be provided for the purposes of screening sub-threshold development.

Table 5-7: Schedule 7A - Location for information to be provided for the purposes of screening sub-threshold development.

Schedule 7A	
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,	Refer to Table 5-4 (questions a-d) and section 2
(b) a description of the location of the Proposed Development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	Refer to Table 5-5 and section 4
2. A description of the aspects of the environment likely to be significantly affected by the Proposed Development.	Refer to Table 5-6
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,	Refer to Table 5-4, question e.
(b) the use of natural resources, in particular soil, land, water and biodiversity.	Refer to Table 5-5, question c.
4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.	

6 CONCLUSIONS

This EIA screening assessment report has reviewed the potential for the proposed remedial works at the closed landfill at Finisklin, Co. Sligo to be considered as an EIA development. This report assesses the installation of 6No. biowindows and 1No. bioactive trench to comply with the EPA requirements stipulated in the CoA, to be undertaken in combination with the Proposed Development of a new public park on a portion of the former landfill that will provide an important new amenity to the local community.

Based on the findings of this EIA screening assessment, the Proposed Development does not require a mandatory EIAR, nor does it meet the criteria where a sub-threshold EIA would be warranted. There is no requirement to submit an EIAR in support of the planning application for the Proposed Development.

7 REFERENCES

- CIRIA. (2001). *CIRIA C532 Control of Water Pollution from Construction, Guidance for Consultants and Contractors*. CIRIA.
- CIRIA. (2015a). *C753 - The SuDS Manual*. London: Construction Industry Research and Information Association .
- CIRIA. (2015b). *C774 - Coastal and Marine Environmental Site Guide (Second Edition)*. Construction Industry Research and Information Association.
- CIRIA. (2015c). *C741 - Environmental Good Practice on Site (4th edition)*. Construction industry Research and Information Association.
- CSO. (2016). *Census 2016 Sapmap Area: Settlements Sligo* . Dublin : Central Statistics Office
- DCCA. (2019). *Climate Action Plan 2019 - to tackle Climate breakdown*. Department of Communications, Climate Action and Environment.
- DCCA. (2020). *Climate Action Plan 2019 Fifth Progress Report Q3 2020*. Department of Communiccations, Climate Action and Environment.
- DEHLG. (2003). *Guidelines for Consent Authorities regarding Sub-threshold Development*. Retrieved from <http://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/Environment/Miscellaneous/FileDownload%2C1804%2Cen.pdf>
- DHPLG. (2018). *Transposing Regulations (S.I. No. 296 of 2018) Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment*
- EPA. (1999). *Landfill Manuals: Landfill Restoration and Aftercare*. Environmental Protection Agency.
- EPA. (2007). *Code of Practice on Environmental Risk Assessment for Unregulated Waste Disposal Sites*. Wexford: Environmental Protection Agency.
- EPA. (2017). *Guidelines on the Information to be contained in Environmental Impact Assessment Reports Draft*.
- EPA. (2019). *Air Quality in Ireland (Key Indicators of Ambient Air Quality) – Annual Report 2019*. Johnstown Castle, Co. Wexford: Environmental Protection Agency.
- EPA. (2020a). *Ireland's National Inventory Report 2020, Greenhouse Gas Emissions 1990 - 2018*. Wexford: Environmental Protection Agency.
- EPA. (2020b). *The Status of Ireland's Climate, 2020*. Wexford: Environmental Protection Agency.
- EPA. (2021a). *EPA Map Viewer*. Retrieved from EPA Maps: <https://gis.epa.ie/EPAMaps/>
- EPA. (2021b). *Ireland's Final Greenhouse Gas Emissions 1990 - 2019*. Wexford: Environmental Protection Agency.
- epa.ie. (2021, August 20). *Environmental Protection Agency* . Retrieved from Charts & Data: <https://www.epa.ie/resources/charts--data/air/>
- EU. (2017). *Environmental Impact Assessment of Projects. Guidance on Screening*.
- European Parliament. (2014). *Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment Text with EEA relevance*.

- Inland Fisheries Ireland. (2016). *Guidance and Protection of Fisheries during Construction Works in an adjacent to Water*. Dublin: IFI.
- MOR. (2011). *Former Finisklin Landfill Environmental Assessment Project*. Dublin: Malone O'Regan Environmental Services Limited.
- MOR. (2017). *Certificate of Authorisation - Addendum Environmental Risk Assessment Former Finisklin Landfill*. Dublin: Malone O'Regan Environmental Services Limited.
- MOR. (2020a). *Stage 2: Appropriate Assessment - Natura Impact Statement Proposed Remediation Works*. Dublin: Malone O'Regan.
- MOR. (2020b). *Landfill Biowindow Specification CoA H0006-01 Finisklin Closed Landfill*. Dublin: Malone O'Regan Environmental Services Limited.
- MOR. (2020c). *Landfill Gas Report - Condition 3.1 CoA H0006-01 - Summary*. Dublin: Malone O'Regan Environmental.
- MOR. (2020d). *Q3 Annual Monitoring Event - Certificate of Authorisation H0006-01*. Dublin: Malone O'Regan.
- National Monuments Service. (2021, 08 16). *Historic Environmental Viewer*. Retrieved from archaeology.ie: <https://maps.archaeology.ie/HistoricEnvironment/>
- NBDC. (2021). *All-Ireland Pollinator Plan 2021-2025*. Waterford: National Biodiversity Data Centre.
- RWMPO. (2020). *Planning and Planning exemptions for "closed landfill" remediation works and the associated effect of screening for Appropriate Assessment (AA) on the Process*. Regional Waste Management Planning Office.
- SCC. (2010). *Sligo and Environs Development Plan 2017-2023*. Sligo: Sligo County Council.
- SCC. (2017). *Sligo County Development Plan 2017 - 2023 - Volume 1*. Sligo: Sligo County Council.
- Statutory Instrument. (2001). *the Planning and Development Regulations (as amended)*.
- Statutory Instrument. (2018). *The Planning and Development (Amendment) Act*. Dublin: office of the Attorney General.

APPENDICES

APPENDIX A

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15/12/2016

Reg. No. H0006-01

Re: Finisklin Landfill – Notice in accordance with Regulation 7(4) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008

Dear Director

I am to refer to the above referenced application for a certificate of authorisation in relation to the above referenced closed landfill.

For the purpose of determining the application and in accordance with Regulation 7(4) of the abovementioned Regulations, you are requested to provide the information detailed below:

1. The risk assessment provided with the application is completed to Tier 2 only. Given the high risk presented by the closed landfill, present a revised risk assessment taken to Tier 3 and completed in accordance with the *Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites* (EPA, 2007) and the matrices (Matrix 1 and 2) published by the EPA in 2011 that are available for download at: <http://www.epa.ie/pubs/advice/waste/waste/>.
2. Provide any updated monitoring data obtained since the making of the application for a certificate of authorisation insofar as that data is relevant to the Agency's consideration of the application.
3. To ensure the quality of data, including monitoring data, conclusions and recommendations of the risk assessment and any revisions to the risk assessment, provide a letter from a qualified person to Sligo County Council in accordance with the template that can be downloaded at: <http://www.epa.ie/pubs/advice/licencee/historiclandfilltemplateletterqualifiedpersontolocalauthority.html>.



4. The Agency has determined that due to the reasons set out below an Appropriate Assessment is required and notice of that determination is hereby given in accordance with Regulation 42(8)(a) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). You are thereby required to submit a Natura Impact Statement, as defined in Regulation 2(1) of the aforesaid Regulations.

You are furthermore advised to refer to the document *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*, issued in 2009 by the Department of the Environment, Heritage and Local Government, and revised in 2010. This document is available at:

http://www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf

The reasons for requiring a NIS are as follows:

- The closed landfill is adjacent to Cummeen Strand/Drumeliff Bay (Sligo Bay) SAC and Cummeen Strand SPA
- There is evidence of landfill leachate seeping into the adjacent SAC and SPA.
- The conclusion that there is no impact on surface water quality is based on one round of surface water sampling in two locations in Sligo Harbour. This appears to be an inadequate database of sampling data.

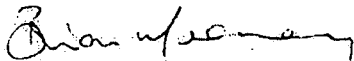
Your reply to this notice should include a revised non-technical summary, which reflects the information you supply in compliance with the notice: insofar as that information impinges on the non-technical summary.

In the case where any drawings already submitted are subject to revision consequent on this request, a revised drawing should be prepared in each case. It is not sufficient to annotate the original drawing with a textual correction. Where such revised drawings are submitted, provide a list of drawing titles, drawing numbers and revision status, which correlates the revised drawings with the superseded versions.

Please supply the information in the form of one original plus one copy. In addition, please submit one copy of the requested information in electronic searchable PDF format on a CD-ROM to the Agency. Please note that all maps/drawings should not exceed A3 in size.

Please note that the application's register number is H0006-01. Please direct all correspondence in relation to this matter to *Administration, Environmental Licensing Programme, Office of Climate, Licensing & Resource Use, Environmental Protection Agency, Headquarters, PO Box 3000, Johnstown Castle Estate, County Wexford* quoting the register number.

Yours sincerely,



Brian Meaney
Environmental Licensing Programme
Office of Environmental Sustainability

9th November 2020

Re. Landfill Biowindows at Finisklin Landfill (H0006-01)

Dear Mr. McGourty,

I refer to the email correspondence received on the 23rd October 2020 from your consultant, Thomas Vainio-Mattila (of *Malone O'Regan Environmental - MOR*), in relation to the proposed landfill gas management infrastructure for Finisklin Historic Landfill (CoA no. H0006-01). You will recall that that correspondence was received following a video conference call held between the EPA, Sligo County Council and MOR on the same date.

Based on the information provided, including the information that had previously been supplied by MOR in relation to this matter (e.g. MOR proposal dated 8th August 2020 and clarification response dated 7th October 2020), the Agency agrees to the proposed works. It is noted that the landfill gas management works at this closed landfill now include the provision of a total of 6 biowindows and 1 bioactive trench.

In relation to landfill gas monitoring and the provision of landfill gas monitoring infrastructure at the facility, the Agency is satisfied with the current arrangements. Such arrangements will be kept under review.

Yours sincerely,



Caoimhin Nolan (OEE Inspector)

26th June 2020

Re. Landfill Gas Pumping Trial at Finisklin Landfill (H0006-01)

Dear Mr. Murtagh,

I refer to your email correspondence received on the 3rd April 2020 in relation to the 2nd landfill gas pumping trial report for Finisklin Historic Landfill (CoA no. H0006-01). I also note your related email of the 5th March 2020, in which you provided liquid-dipping levels from the gas wells at the landfill.

In assessing this documentation, I have noted the following:

- Not all of the information that was requested by Agency in relation to the conducting of the pumping trial (as per my email of 5th March 2020) was provided – e.g. photographs of the pipework and wellhead set up; borehole logs.
- Some of the gas concentrations and flow yields that were recorded in the first and second pumping trials differed from each other.
- During the second pumping trial, gas flow rates at wells G2 and G3 reduced significantly during the course of the trial, despite the suction pressure being relatively static or increasing. Coupled with that, the relative amounts of fresh air being drawn into the system appeared to be quite high.
- The overall percentage of methane recorded at the flare at the end of the 2nd pumping trial dropped to below 12%.
- VOCs have been detected at services located at some of the premises located along the eastern flank of the landfill, albeit that the precise source of these VOCs has not been determined.
- Relatively high percentage methane concentrations continue to be recorded at a number of the gas monitoring wells at the landfill.

Based on all the information that has been provided, and the specific circumstances of this particular landfill (e.g. groundwater levels, tidal influence, waste composition, capping materials), I am satisfied that there is an insufficient landfill gas available for abstraction to warrant the installation of an active abstraction and flaring system. Nonetheless, the Agency remains of the view that landfill gas currently poses a risk at this facility without

further intervention measures being taken to break the *source-pathway-receptor* linkage. In view of this, the Agency agrees to your overall proposal to install passive gas venting systems such as biowindows and a bioactive intercepting trench, but the precise details of these systems will need to be agreed in advance.

The Agency requests that you now provide detailed design details of the landfill gas risk control measures to be proposed, taking account of the following:

- Venting biowindows and/or trenches should be installed across the entirety of the landfill, and not just focused on the northern and final cells section of the landfill. It is particularly important that additional venting systems are installed to the east of the roadway where the intercepting trench has been proposed to be located.
- Drawings are provided to show the proposed location of the venting infrastructure.
- Justification/explanation is provided on the design approach used in setting out the sizing, design, location and spacing of the gas venting infrastructure.
- Details are provided of the proposed monitoring and maintenance arrangements¹ for the gas venting infrastructure. [Such monitoring arrangements could include for example, inclusion of the infrastructure in the surface VOC monitoring which is required to be done on a quarterly basis under Condition 3.5(f)].

To ensure that the landfill gas mitigation measures are being effective, the Agency wishes to remind you of the importance of monitoring for landfill gas, particularly at/near the main receptors along the eastern flank of the landfill body. You will note that the Agency has previously highlighted a concern (i.e. correspondence of 30th January 2020) in relation to the adequacy of the existing framework of gas monitoring wells to be able to provide sufficient reassurance in this regard. The Agency now requests that you submit proposals in relation to improving the provision of landfill gas monitoring wells near the receptors located along the eastern flank of the landfill.

Yours sincerely,



Caoimhin Nolan (OEE Inspector)

¹ It should be noted that biofilter-type systems require active ongoing maintenance and checking to ensure that the bed media remains fit for purpose.