



CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE &  
PLANNING

# TIPPERARY TOWN HISTORICAL LANDFILL REMEDIATION

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## ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT - TIPPERARY TOWN HISTORICAL LANDFILL REMEDIATION

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**Prepared for:**  
Tipperary County Council



Comhairle Contae Thiobraid Árann  
Tipperary County Council

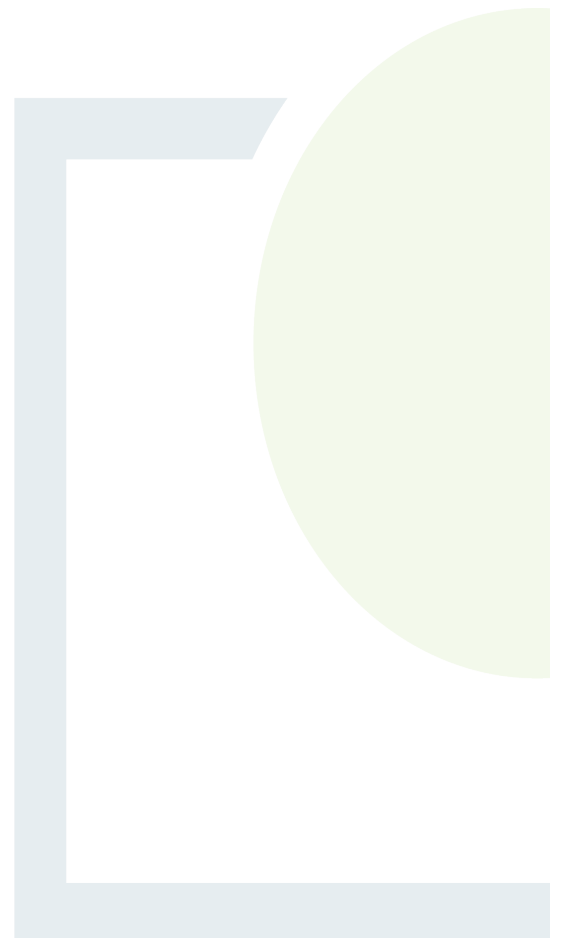
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## REVISION CONTROL TABLE, CLIENT, KEYWORDS AND ABSTRACT

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**Abstract:** This report comprises an Environmental Impact Assessment Screening of the proposed remediation works at the Historic Landfill at Carrownreddy, Tipperary Town.



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## 1. INTRODUCTION AND BACKGROUND

Fehily Timoney and Company (FT) was engaged by Tipperary County Council to undertake an Environmental Impact Assessment (EIA) Screening Report in respect of the proposed Tipperary Town historical landfill remediation. From the outset, it is noted that a Tier 1, Tier 2 and Tier 3 Risk Assessment has been carried out in accordance with the EPA's Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal. Tipperary County Council subsequently applied for a Certificate of Authorization (CoA) from the Environmental Protection Agency (EPA) and Certificate of Authorization Ref: H0004-01 was issued for the site on 6th February 2019 (Appendix 1). This application was accompanied by a Stage 1 Appropriate Assessment Screening. The EPA, as the Competent Authority, screened in the site for appropriate assessment due to the site's proximity to the Lower River Suir SAC (002137).

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

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

In addition to the above, the RWMPO guidance document issued in November 2020, states that the local authority must carry out a screening for EIA in accordance with Article 120 of the Planning and Development Regulations 2001 and where the remediation works are screened in for EIA, an EIAR must be prepared. Thus, having regard to the foregoing, FT has been engaged to assess whether the proposed remediation works would have a significant effect on the environment and therefore require a full Environmental Impact Assessment Report (EIAR).

### 1.1 Description of Existing Site

The subject landfill is a historic landfill having received waste from Tipperary Town from the 1940's to c. 1990. Waste deposited at the site is understood to comprise of municipal and commercial wastes to depths of approximately 9 m to 12 m. Tipperary Town Council currently uses part of the site as a depot for the storage of road maintenance materials and machinery. Other lands adjoining the site are primarily associated with low intensity agriculture.

The historical landfill site is in the townland of Carrownreddy, immediately north of Tipperary town, partially within a wetland surrounded by agricultural lands adjacent to the town. The site is accessed from the east via the Carrownreddy road L-8217, which is a cul de sac accessed from the R661. The most proximate residential dwellings to the subject lands are located to the west of the site, along the eastern and western sides of the R497, the closest being within approximately 205 m west of the western site boundary. Springfield Grove residential estate is located approximately 260 m north-east of the northern site boundary. The historical landfill consists of a mound which rises out of a natural hollow, part of which has been infilled with waste.

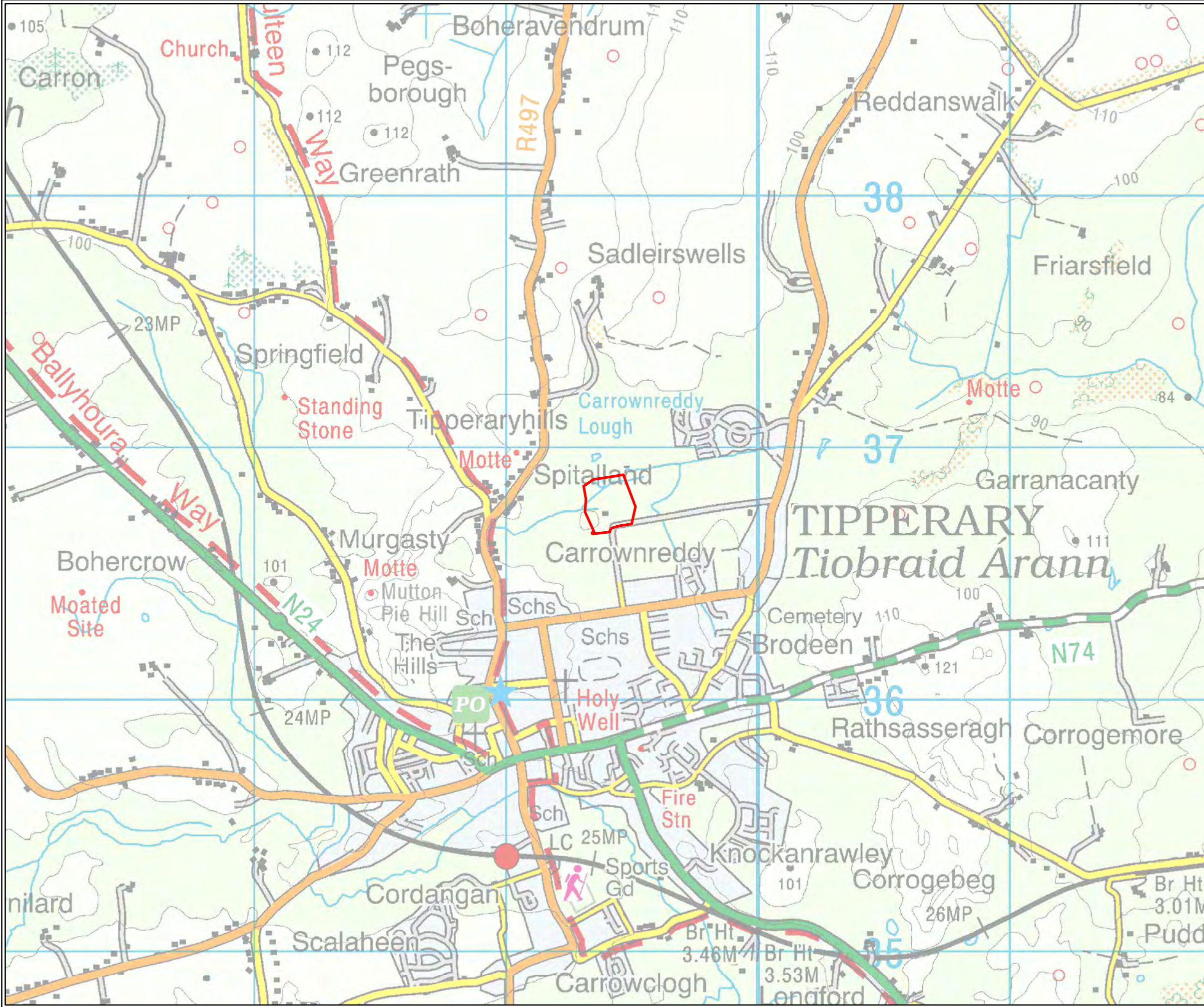


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The land to the west, east and north is noticeably lower, with the mound of waste, which is now mainly capped with a soil cover material. Surface profiles fall steeply towards the surrounding wetland and its edges.

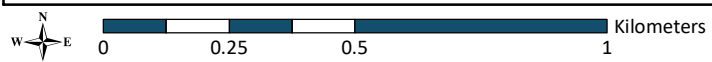
A site location map showing the site relevant to its wider context is shown in the figure overleaf.





— Landfill Boundary

<b>TITLE:</b>	
Site Location	
<b>PROJECT:</b>	
Tipperary Town Historical Landfill Remediation	
<b>FIGURE NO:</b>	
1.1	
<b>CLIENT:</b>	
Tipperary County Council	
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## 1.2 Overview of the Proposed Project

The proposed development works are as follows:

- *Development of a temporary site compound on the proposed engineered capped development and a temporary office location removed from the engineered cap within the site boundary.*
- *Demolition of existing structures including an existing agricultural building, concrete walls and post and wire fencing.*
- *Clearance of vegetation and tree felling.*
- *Grading/Profiling of Existing Profile.*

*Installation of an engineered landfill capping system to include: a landfill gas venting system, an LLDPE Barrier, a sub-surface drainage system, a geogrid layer, sub-soil and topsoil layers, a surface water drainage system, an access track and a shared access way to adjoining third party lands, fencing, a car park area, temporary works/mitigation measures security fencing, landfill gas/leachate management infrastructure, landscaping and an anchor trench/gas barrier.*

*The following will be carried out on-site following on from completion of the proposed development works.*

- *Ongoing Environmental monitoring.*
- *Oxidation of Methane in Landfill Gas.*
- *Maintenance of engineered cap on-site.*
- *Maintenance of surface water drainage system on-site.*

The application site defined by the red line boundary in accompanying drawings is 3.57 ha in size. The proposed capping area within the application site proposed is 2.29 ha in size.

A Site Layout Plan showing the layout of the above project elements is enclosed with this planning application (Drawing Reference: P0563-0100-0014).



### 1.3 Relevant Experience and Expertise of Assessor

Richard Deeney of Fehily Timoney and Company was responsible for completing the EIA Screening Assessment in this case. Richard is a Senior Environmental Scientist working as part of the Waste and Environment Team in Fehily Timoney and Company. Richard holds a B.Sc. First Class Honours degree in Environmental Management from Dublin Institute of Technology. Richard is a Chartered Environmentalist with the Society for the Environment. Richard has ten years' experience working in the area of environmental assessment/management.

Richard is vastly experienced in project managing and coordinating Planning Applications, Environmental Impact Assessment Reports and Environmental Assessment. He also has a vast amount of experience developing Environmental Management Plans and Systems, carrying out Environmental Auditing and assisting clients with Environmental/Permit/License Compliance.

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



## 2. PROJECT DESCRIPTION

A description of the proposed project is contained in Section 2.2 of the Planning and Environmental Report which accompanies this Section 177AE Planning Application to the Board. To avoid reiteration and the possibility of conflicting information being presented within the application, the reader is advised to refer to the aforementioned section/report to develop an understanding of the project. The EIA Screening Assessment undertaken and reported upon in this document has had regard to this project description.





## 3. EIA SCREENING

### 3.1 EIA Project Types

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

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

The Requirement for the EIA of various types of development are transposed into Irish legislation under the Planning and Development Act and the Planning and Development (Amendment) Regulations 2001-2021. Schedule 5, Part 1 of the Planning Regulations includes a list of projects which are subject to EIA based on their type. Part 2 of the same schedule includes a list of projects which by reason of scale also fall into the EIA category for example, wind farms with more than 5 no. turbines or having a total output greater than 5 megawatts or waste handling facilities that handle more than 25,000 tonnes of waste per annum all fall into Part 2. Schedule 5 also includes a section on extensions or changes to developments for example, any change or extension to existing projects which would result in the development being of a class listed in Schedule 5 or result in an increase in size greater than 25% or 50% of the appropriate thresholds would fall into Schedule 5 and thus require an EIA.

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

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

- 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
- 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’.
- 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 demolitions would be likely to have significant effects on the environment, having regard to the criteria set out under Schedule 7’.
- 15: ‘Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.’



The proposed development site is 3.57 ha in size, which is less than the 10 hectare threshold (for built up areas) defined under Class 10(b)(iv). The proposed development therefore does not fall within Class 10(b)(iv) of Part 2 of Schedule 5 of the Planning and Development Regulations 2001.

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

In addition, as part of the remediation works, there will be a requirement to re-profile the intermediate cap which overlies the waste to facilitate safe execution of the remediation works, long-term slope stability and safe access for maintenance, as well as the required demolition of existing structures associated with the existing site usage. These include the existing agricultural style portal frame and the adjacent concrete loading/unloading areas.

Given that the proposed works involves changes to the existing development, including the demolition of certain structures, it can therefore be regarded as a development listed in Part 2 of Schedule 5 which does not meet a limit specified in the Schedule and/or as a change to an existing development involving the demolition of structures. However, given the limited nature of the proposed demolitions and in consideration of the proposed remediation works, it is submitted, having regard to the provisions of Part 1 and Part 2 of Schedule 5 of the 2001 Regulations, that the requirements for a mandatory EIA can be screened out. In the circumstances, although a mandatory EIA is not triggered for the proposed project, an assessment of the likelihood of the proposed works to have a significant effect on the environment having regard to the criteria set out in Schedule 7 will be undertaken. If it is likely that the project will have a significant effect on the environment having regard to the criteria set out hereunder, an EIA will be required.

The Draft EPA 2017 Guidelines on Information to be contained in an Environmental Impact Assessment Reports notes that even where a proposed project is not a type that is included in the statutory EIA project list, the determination of sub-threshold EIA Screening is an increasingly complex issue and should not be decided on without full consideration of the 2014 EIA Directives ‘wide scope and broad purpose’, as set out in the EU Documents of Interpretation of definitions of project categories of Annex I and Annex II of the EIA Directive 2008.

### 3.2 Sub-Threshold EIA Screening

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

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





The requirements are as follows:

1. *Characteristics of the proposed development*

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

2. *Location of Projects*

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

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



### 3. Characteristics of potential impacts

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

*The magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected).*

- *The nature of the impact.*
- *The transboundary nature of the impact.*
- *The intensity and complexity of the impact.*
- *The probability of the impact.*
- *The expected onset, duration, frequency and reversibility of the impact.*
- *The cumulation of the impact with the impact of other existing and/or approved projects.*
- *The possibility of effectively reducing the impact.*

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

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



**Table 3-1: EIA Screening Checklist**

Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
<p>1. Will construction, operation, decommissioning, or demolition works of the Project involve actions that will cause physical changes in the locality (topography, land use, changes in waterbodies, etc.)?</p>	<p>There will be minor excavations as part of the proposed remediation works. Also included as part of the works, is the re-profiling of the existing land surface and the provision of a subsoil and topsoil layer.</p> <p>Demolition works will be undertaken as part of the proposed development.</p>	<p>No, due to the small size and temporary nature of proposed excavations. The works area will be reinstated upon completion of the works. All cut materials will be used as fill in local depressions and all cut and fill works will be carried out within the site boundary.</p> <p>Demolition works will be undertaken as part of the proposed development. Demolition works will however be relatively minor in scale (involving only the demolition of one agricultural buildings and a number of concrete walls and fences). These demolition works will not have a significant impact on any environmental receptor given their minor and time limited nature and given that the construction and demolition works as a whole will be carried out in accordance with a Construction Environmental Management Plan.</p>
<p>2. Will construction or the operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or are in short supply?</p>	<p>Natural resources will be used in the form of materials for construction. Energy will be used to power construction machinery. A granular 'dust' material will be used for the formation for the engineered cap. Additionally, suitably sourced subsoils will be placed atop the sub-surface drainage geocomposite and/or geodrid on side slopes, a topsoil layer will then be placed atop the subsoil.</p>	<p>The proposed development will not involve the use of significant levels of natural resources such as construction materials or energy. The proposed development is not likely to result in a significant impact in this regard and is in line with existing and established trends in terms carrying out remediation works on closed landfill sites as that to which this report pertains.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
<p>3. Will the Project involve the use, storage, transport, handling or production of substances or materials which could be harmful to human health, to the environment or raise concerns about actual or perceived risks to human health?</p>	<p>The project is concerned with the remediation of an historic landfill. Materials associated with the project which create potential hazards include buried wastes, unknown waste, made ground, landfill gas and leachate. Whilst no extensive excavations of waste materials are proposed, contact with possible waste materials cannot be completely eliminated.</p> <p>Fuel will be stored on-site during construction. Fuels will be stored in banded containers. Re-fuelling will be undertaken in a designated hard standing re-fuelling area with the proposed site compound.</p>	<p>No, this is not likely to result in significant impacts on human health or the environment. The proposed remediation works will be undertaken in accordance with Health and Safety standards and legislation/regulations. A comprehensive Safety and Health Management Plan will be adopted and adhered to by the Contractor to ensure minimal risk in terms of human health and the environment.</p> <p>It is not likely that fuels on-site will be released to and have an effect on the environment given control measures in place to prevent such loss of containment and discharges, as defined in the Construction Environmental management Plan for the proposed works.</p> <p>The proposed remediation works will be undertaken in accordance with the terms and conditions of an EPA Certificate of Authorization for Landfill Closure relating to environmental protection and site remediation. No significant environmental impacts will occur as a result of this.</p>
<p>4. Will the Project produce solid wastes during construction or operation or decommissioning?</p>	<p>There will be some material waste generated as a consequence of demolition works undertaken on-site</p> <p>Japanese Knotweed will also be generated during vegetation clearance works.</p>	<p>No. The waste will be removed by a licenced waste operator and disposed of at a licensed facility. It is noted that no significant levels of solid waste will be produced during the operation or decommissioning phases. All materials excavated during works will be reused on-site for contouring.</p> <p>An invasive species management plan is in place for the ongoing treatment of Japanese Knotweed on site. Japanese Knotweed will be buried on-site thereby preventing its spread.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
<p>5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air or lead to exceeding Ambient Air Quality standards in Directives 2008/50/EC and 2004/107/EC?</p>	<p>Construction machinery will likely cause release of pollutants in the form of exhaust emissions. Similarly, vehicular transport associated with the facility will cause exhaust emissions.</p> <p>As a result of natural biodegradation of waste which was deposited in the landfill during operation, gases have formed. As part of the remediation works, an LLDPE barrier will be installed, below which a gas collection geocomposite and pipework system will be constructed to collect and direct landfill gas as may be present to controlled venting outlets to allow venting and/or oxidation of landfill gas as may be present to atmosphere.</p>	<p>No likely significant impact. Vehicular transport associated with the construction and operational phases of the facility produces negligible impact to air quality given scale of construction phase and anticipated traffic levels. Materials generated during works on-site will be reutilized on-site thereby minimizing traffic associated with the proposed development.</p> <p>Whilst there will be some emissions released from the site given its previous use (i.e., landfill gas), it is noted that the proposed remediation works will ultimately have a positive impact on air quality within the surrounding area following construction of the engineered cap as the design of the cap will facilitate the controlled venting of gas to the atmosphere.</p>
<p>6. Will the Project cause noise and vibration or the releasing of light, heat energy or electromagnetic radiation?</p>	<p>During construction noise emissions will occur from construction plant.</p>	<p>No. Noise emissions during construction will be temporary and it is unlikely that the TII noise limits will be exceeded. In addition, there are no Noise Sensitive Locations within relative close proximity to the site</p> <p>The project is unlikely to cause significant noise impacts on the receiving environment.</p>
<p>7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?</p>	<p>Existing wells within and external to the landfill footprint will be used to monitor gas and leachate qualities. The EPA will require regular monitoring of landfill gas quality. Subject to gas quality at venting locations landfill gas will either be vented to atmosphere via a carbon filter or vented to atmosphere via a biological filter if elevated methane concentrations are observed to increase following installation of the LLDPE barrier.</p>	<p>No. The proposed works relate to enhanced remediation.</p> <p>Following remediation works, leachate will continue to be produced and enter groundwater for a time. However, remediation works will prevent rainwater from infiltrating the interred waste body therefore reducing the potential for leachate to be produced in</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
	<p>Surface water monitoring suggests that there is some evidence of contamination at locations downstream of the historical landfill, there is also evidence to suggest that run-off from the surrounding agricultural land is impacting on water quality at monitoring locations upstream and downstream of the landfill. The proposed LLDPE barrier will provide an engineered barrier that will isolate the water body from rainfall inputs and prevent leachate production that might otherwise contaminate groundwater.</p>	<p>the short term and ultimately preventing leachate production. The proposed remediation works will ultimately have a positive impact on water quality within the river network downstream because leachate generation will reduce following construction of the engineered cap.</p>
<p>8. Will there be any risk of accidents during construction or operation of the Project that could affect human health or the environment?</p>	<p>The works will be conducted safely and in accordance with the Safety, Health and Welfare at Work Act and associated Regulations.</p>	<p>No. There is a low risk of accidents during the construction and operation of the Project. A Health and Safety Plan will be developed to prevent health and safety impacts. An Environmental Management System and an Emergency Response Procedure will be in place to prevent the occurrence of accidents which may affect environmental receptors.</p>
<p>9. Will the Project result in environmentally related social changes, for example, in demography, traditional lifestyles, employment?</p>	<p>No, there will be no generation of employment as a result of the Project once operational.</p>	<p>The project will not have a significant impact on demography, lifestyles or employment.</p>
<p>10. Are there any other factors that should be considered such as consequential development which could lead to environmental impacts or the potential for cumulative impacts with other existing or planned activities in the locality?</p>	<p>A limited number of small-scale developments have been permitted in the townlands overlapping and surrounding the landfill site. A number of commercial and public projects were also permitted. These do not have the potential to contribute appreciably to the cumulative effects. In addition, development consisting of a Childcare facility and 84 no. dwellings is proposed for Dundrum Road, and a</p>	<p>The project will not result in any in-combination impacts with other projects due to the intended adoption of the defined environmental management and mitigation measures for the remediation works and given the lack of potential for combining impacts. Measures have been defined for controlling polluting dust, noise and traffic such that these aspects will be a negligible, insignificant environmental impact.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
<p>1.1. Is the Project located within or close to any areas which are protected under international, EU or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the Project?</p>	<p>total of 12 historic landfills are present in the Suir catchment within Co. Tipperary, inclusive.</p> <p>The N24 Cahir to Limerick junction development is in the process of being designed and will be constructed in the vicinity of the development site to the north. This project is currently at Phase 3 Design and Environmental Evaluation.</p>	<p>Risk assessments for the remaining 11 no. landfill sites have not yet been completed, and as such site-specific remediation measures have not been recommended to date.</p> <p>Having regard to the above, it is noted that due to the late initiation of the risk assessment process for these sites, if authorised, the remediation works at Tipperary Town historical landfill would be likely to have been completed before the initiation of remediation works at these sites.</p> <p>The N24 project is being designed so that there will be no land take requirements conflicts between the two projects. The road and associated construction works will be situated a significant distance away from the footprint of the landfill and remediation works.</p>
<p>1.1. Is the Project located within or close to any areas which are protected under international, EU or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the Project?</p>	<p>There are no international, EU or nationally designated areas in the immediate vicinity of the Project. There are five no. European sites within 15 km of the facility. The closest of these is 6.5 km from the landfill site.</p>	<p>The Natura Impact Statement which accompanies this report, concludes beyond reasonable scientific doubt that there are not likely to be significant effects from the proposed works on four of the European sites identified within 15 km of the subject site (or any other site beyond 15km) either alone or in combination with other plans or projects, with the adoption of the proposed mitigation measures.</p> <p>With the implementation of the detailed mitigation measures outlined in the accompanying NIS, it is concluded beyond reasonable scientific doubt that the integrity of the Lower River Suir SAC will not be affected.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
<p>12. Are there any other areas on or around the location that are important or sensitive for reasons of their ecology e.g., wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, that could be affected by the Project</p>	<p>There are no habitats within the subject site that conform to those listed under Annex I of the EU Habitats Directive. There are four no. pNHAs located within 5 km of the site.</p>	<p>No. There are no habitats within the study area that conform to those listed under Annex I of the EU Habitats Directive. In respect of the pNHAs, the subject development is not likely to impact on these designated areas, given the limited extent of the proposed works and the significant distance between each of the pNHAs and the subject lands.</p>
<p>13. Are there any areas on or around the location that are used by protected, important or sensitive species of fauna or flora e.g., for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the Project?</p>	<p>The Lower River Suir is located c. 6.5km from the subject site. The conservation objective of which is to maintain or restore the favourable conservation condition of the Annex I habitats and Annex II species for which the SAC has been selected.</p>	<p>Whilst it has been acknowledged that there could be potential for the proposed historical landfill remediation to have significant effects on Lower River Suir SAC, with the implementation of the detailed mitigation measures identified in this NIS and set out in Condition 3 of the certification of authorisation, it is concluded beyond reasonable scientific doubt that the integrity of the Lower River Suir SAC will not be adversely affected.</p>
<p>14. Are there any inland, coastal, marine or underground waters (or features of the marine environment) on or around the location that could be affected by the Project?</p>	<p>The Lower River Suir SAC is located c. 6.5 km from the subject site. At present and prior to the initiation of remediation works, leachate is likely to escape from the site and enter groundwater and surface waters. The proposed remediation works will prevent rainwater from infiltrating the interred waste body, therefore reducing the potential for leachate to be produced.</p>	<p>No. Post construction the LLDPE barrier will provide an engineered barrier that will isolate waste body from rainfall inputs and prevent leachate production that might otherwise contaminate groundwater. The proposed remediation works will have a positive impact on water quality within the River network downstream because leachate generation will reduce following construction of the engineered cap.</p>
<p>15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the Project?</p>	<p>The 2016 Landscape Character Assessment (LCA) of the County Development Plan identified the area as being A1.1 in character i.e., an archetype pf 'The Plains' (A), a landscape character type of 'Lowland</p>	<p>No, the relatively small scale of the development and lack of landscape/visual sensitivities in the study area will mean that it is unlikely to have a significant impact on the landscape. In addition, on-site works will be</p>





Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
	<p>Pastures &amp; Arable' land (1), and a landscape character area characterised at the 'Urban and Fringe Areas' (1). The dominant sensitivity associated with the Urban and Fringe Area has been categorised as 'robust' in the LCA for the county, the primary objective associated with which is to '<b>Encourage development that will improve the appearance</b> and character if the area'.</p> <p>The area surrounding the subject site to the north and east are identified as being A1.4 in character i.e., 'River Suir Central Plain/Nenagh Corridor', whilst the area further west is identified as being A1.6 in character 'West Tipperary Farmland Mosaic', the landscape sensitivity associated with each has been categorised as 'normal'.</p> <p>Having regard to the forgoing it is noted that there are no features of high landscape or scenic value that could be affected, and the works are restricted in nature.</p>	<p>temporary in nature and only give rise to temporary landscape of visual impacts. All excavation works will be fully reinstated.</p> <p>Notwithstanding the above, it is noted that the proposed remediation works will significantly improve the visual amenity of the immediately surrounding area.</p>
<p>16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the Project?</p>	<p>The locations of the works are not located near the location which are used by the public for access to recreational facilities which will be impacted by the projects.</p>	<p>There are no likely significant impacts anticipated in this regard.</p>
<p>17. Are there any transport routes on or around the location that are susceptible to congestion or which cause environmental problems, which could be affected by the Project?</p>	<p>The proposed project will not affect transportation routes. Additional traffic will be generated on the surrounding road network during the construction phase; however this is of a limited scale.</p>	<p>No likely significant effects due to limited number of HGVs/LGVs required and the time limited nature of the works. Material generated during earthworks on-site will be reutilized on-site thereby reducing traffic movements associated with material being taken from the site. Traffic movements to the site will also take</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
18. Is the Project in a location in which it is likely to be highly visible to many people?	The temporary construction works may be visible from the surrounding network at isolated locations; however, existing site is separated from adjacent roads and properties by agricultural fields. Existing mature field boundaries are also present which further impede views towards the site.	place in accordance with a Construction Traffic Management Plan.  There will be no significant visual impacts given the scale and nature of the works, their temporary nature and the visual screening surrounding the site. Notwithstanding this, the proposed remediation works will significantly improve the appearance of the existing site.
19. Are there any areas or features of historic or cultural importance on or around the location that could be affected by the Project?	There is 1 no. entry on the Record of Monuments and Places located within the subject site boundary: An Enclosure (TS067-003----). Additionally, the following entries are also located within 500m of the subject site: A Well (TS059-130----) is located c. 330m north-east of the site. A Motte and Bailey (TS067-001----) is located c. 340m north-west of the site. A Burnt Mound (TS067-132----) is located approximately 260m south-west of the southern site boundary.  Following a review of the available datasets and consulted sources, including the Archaeological Test Trenching & Assessment Report carried out in respect of the subject lands in 2005 by AEGIS Archaeology Limited, there is no evidence of potential unrecorded archaeological features within the proposed work areas.  Although ground excavation will be required during the proposed works, given the previous disturbance associated with the landfill facility, combined with the low archaeological potential of the proposed work location, the potential for impacts occurring to	With regards to the archaeological feature on site, Archaeological Test Trenching & Assessment Report carried out in respect of the subject lands in 2005 by AEGIS Archaeology Limited. This assessment concluded that <i>'although the site is located within the zone of potential interest, and in fact is on top of the archaeological site T1067-003---, a possible enclosure, the testing results suggest that the possible enclosure is no longer extant (if indeed one existed on the site) and is now covered in a substantial depth of fill. In this context, the following mitigation was suggested: 'That all ground works associated with the development be archaeologically monitored in case isolated subsurface unrecorded archaeological features or artefacts relating to the possible enclosure are revealed.'</i>  The above mitigation measure will be adopted as part of the proposed remediation works; thus no significant impact is likely.  The subject development is an appropriate distance from the remaining existing listed monuments,



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
	<p>any unrecorded archaeological artefacts, features or deposits as a result of the proposed works is considered to be very low.</p> <p>4 no. entries to the National Inventory of Architectural Heritage are located within 500m of the subject site. These include: three structures associated with the Convent of Mercy (22108005, 22108004 and 22108004) which are located on Rosanna Road, c. 430 metres south-west of the site, and a sports hall/centre/gymnasium (22108002) which is located along the R479 road, c. 470 metres south-west of the southern site boundary.</p> <p>There are 5 no. structures listed on the Tipperary Town and Environs Development Plan (2013) 'Record of Protected Structures' which are within a 500m distance of the subject site, these are inclusive of RPS 2 'Mount Sion Murgasty Road', located c. 475 metres south-west of the site, RPS 3, RPS 4 and RPS 5, all of which are associated with Mercy Convent on Rosanna Road, c. 430 metres south-west of the site and RPS 113 'Cnoc Sion Rosanna Road' which is situated c. 280 metres south of the site.</p>	<p>buildings and RPS structures as to not interfere with the amenity and setting of the listed sites.</p>
<p>20. Is the Project located in a previously undeveloped area where there will be a loss of greenfield land?</p>	<p>There will be no loss of greenfield land as a result of the proposed project. The site is an historic landfill.</p>	<p>No, there will be no permanent loss of greenfield land.</p>
<p>21. Are there existing land uses within or around the location e.g., homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture,</p>	<p>Existing land uses around the works areas are agricultural fields, wetlands and residential.</p>	<p>Existing land uses will not be affected by the proposed works given the environmental control and mitigation measures that will be in place during the construction and operational phases of the proposed development</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
forestry, tourism, mining or quarrying that could be affected by the Project?		and given the proximity of certain sensitive land uses to the site (E.g., housing). Measures have been defined for controlling polluting aqueous emissions, dust, noise and traffic.
22. Are there any plans for future land uses within or around the location that could be affected by the Project?	<p>The subject site is located within an area which is zoned 'Amenity', the primary objective of which is to 'preserve and enhance Recreation and Amenity'.</p> <p>Upon review of the applicable land use zoning map, it is noted that the lands to the south-west of the subject site are zoned 'Phase 2 Residential Lands', the objective of which is to 'provide for New Residential development. Density on such sites will be determined by the nature of the site and proximity to the town centre.'</p> <p>In this regard, the Tipperary Town and Environs Development Plan 2013 notes that development proposals on the site of the former landfill, or n ground within 250 metres thereof, must take cognizance of the status of these lands. Policy INF 19: Former Municipal Landfill Site is of relevance in this context and states that:</p> <p><i>'The Planning Authority may require as part of development proposals on or within the vicinity of the former municipal landfill site, the developer to implement mitigation measures as deemed necessary, to offset any potential risk which may result from the closed landfill. The extent of any measures required will be predicted on the status of South Tipperary County Council's remediation plan.'</i></p>	<p>There will be no likely significant impact on undeveloped lands. It is noted that provisions have already been made within the Tipperary Town and Environs Development Plan (2013) have already been outlined in respect of the future development of adjacent lands within 250m of the landfill site to offset and potential risk which may result from the closed landfill. The full set of mitigation measures defined in the plan to protect future development are as follows:</p> <p>The mitigation measures referred to above may include the following:</p> <p>Gas Protection Measures for houses within 250m of the closed landfill</p> <p>No houses to be permitted within 50m of the closed landfill</p> <p>No private gardens within 10m of the closed landfill</p> <p>Gas monitoring boreholes etc.</p> <p>It is further noted that the proposed development will not have a significant effect on the future deliverability of the Northern Inner Relief Route, given the limited nature and scale of the proposed remediation works.</p> <p>Additional mitigation measures have been defined in the accompanying CEMP and NIS which will serve to protect areas earmarked for future land use.</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
<p>23. Are there areas within or around the location which are densely populated or built-up, that could be affected by the Project?</p>	<p>As such the developer is required to develop such measures with South Tipperary County Council.' The mitigation measures referred to above are likely to include the following until remediation measures have been implemented and have been demonstrated to be effective:</p> <ul style="list-style-type: none"> <li>• Gas Protection Measures for houses within 250m of the closed landfill.</li> <li>• No houses to be permitted within 50m of the closed landfill.</li> <li>• No private gardens within 10m of the closed landfill.</li> <li>• Gas monitoring boreholes etc.</li> </ul> <p>Additionally, the existing road which adjoins the development site to the south, the Carrownreddy Road is indicated on the Principles Map (Map No. 3) of the Tipperary Town &amp; Environs Development Plan (2013) as the proposed Northern Inner Relief Route to link the N24 Waterford – Limerick National Primary Route to the R497 Tipperary Town- Donohill Regional Road the R601 Tipperary Town – Dundrum Regional Road and the N47 Tipperary Town – Cashel National Secondary Route.</p>	
<p>23. Are there areas within or around the location which are densely populated or built-up, that could be affected by the Project?</p>	<p>The subject development is located to the immediate north of Tipperary Town. The most proximate residential dwellings to the subject lands are located to the west of the site, along the R497,</p>	<p>Some minor, time limited nuisance effects may arise due to the location of the works in proximity to an urban area. However, the works will be temporary and a comprehensive set of mitigation measures will be in</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
	<p>the closest being c. 205 metres west of the western site boundary. Springfield Grove residential estate is located c.260 metres north-east of the northern site boundary.</p> <p>Nuisance effects in the local population may arise due to the location of the site in proximity to an urban area. However, the works are temporary, and the site will be fully remediated.</p>	<p>place to prevent, minimize and control noise, dust and traffic related impacts.</p>
<p>24. Are there any areas within or around the location which are occupied by sensitive land uses e.g., hospitals, schools, places of worship, community facilities, that could be affected by the Project?</p>	<p>There are 4 no. schools located within 1km of the subject site, these include St. Joseph's Primary School, St. Annes Secondary School, Tipperary Girls National School and St Ailbes Vocational School.</p> <p>In respect of religious facilities, St. Michael's Roman Catholic Church is located approximately 630 metres south-west of the subject site on the northern side of Tipperary Town.</p>	<p>Given the limited nature and scale of the proposed works, given proposed mitigation measures, and given the distance from the site to these various sensitive receptors, it is not likely that the subject development will impact negatively on these sensitive land uses.</p>
<p>25. Are there any areas within or around the location which contain important, high quality or scarce resources e.g., groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, that could be Affected by the Project?</p>	<p>There are no areas of scarce natural resources within or in the vicinity of the site.</p> <p>The site is underlain by a regionally important aquifer which is karstified with a diffuse flow.</p> <p>The site is hydrologically connected to the Lower River Suir SAC. This is Natura 2000 site and is also utilized for game angling (namely salmon and brown trout fishing).</p> <p>No other areas containing high quality resources are situated within the vicinity or sphere of influence of the site.</p>	<p>No. There will be no impacts on high quality or scarce natural resources. Enhanced remediation will reduce the generation of leachate affecting groundwater and will consequently result in positive impacts. Mitigation measures will be in place to prevent polluting discharges to groundwater or surface waters as a consequence of proposed development activities.</p>
<p>26. Are there any areas within or around the location which are already subject to pollution or</p>	<p>The subject site comprises 6 no. invasive plant species, which is inclusive Japanese knotweed.</p>	<p>An invasive species management plan has been prepared and an invasive species specialist or qualified</p>



Checklist Questions	Yes/No/Briefly describe	Is this likely to result in a significant impact? Yes/No/Why?
<p>environmental damage e.g., where existing legal environmental standards are exceeded, that could be affected by the Project?</p>	<p>Leachate monitoring results showed multiple parameters exceeded the EPA Interim Guideline Values (IGVs) for Groundwater. Elevated levels of ammonia, iron, manganese and chromium were recorded in the surface water monitoring results. Additionally, the potential for effects on water quality arising from fuel or oil spillages and riverbank destabilisation resulting from instream spread of Japanese knotweed is also noted. Currently landfill gas as may be present vents gas to atmosphere via diffuse surface emissions. Once the proposed LLDPE barrier is installed this preferential pathway to atmosphere will be isolated. Below the LLDPE barrier a gas collection geocomposite and pipework system will be constructed to collect and direct landfill gas as may be present to controlled venting outlets to allow venting and/or oxidation of landfill gas as may be present to atmosphere. The gas collection geocomposite forms a 'cavity' to intercept gas emissions from the underlying body.</p>	<p>ecologist will supervise cordoning and ongoing eradication (through burial) of any invasive species present at the time of construction. Having regard to the proposed remediation works and associated mitigation measures outlined in the accompanying NIS, it is noted that the project will not result in additional emissions or discharges which could cause pollution, and will in fact improve the current conditions and emission at the site.</p>
<p>27. Is the Project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g., temperature inversions, fogs, severe winds, which could cause the Project to present environmental problems?</p>	<p>The project is not susceptible to natural disasters.</p>	<p>No, no natural disasters likely at the works location.</p>

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

Schedule 7A Requirement	Description
1. A description of the proposed development, including in particular –	A detailed description of the proposed development is in Section 2 and has been assessed with regard to Schedule 7 criteria in Table 3.1
(a) A description of the physical characteristics of the whole proposed development, and, where relevant, of demolition works, and	A description of the physical characteristics of the whole proposed development is in Section 2 and has been assessed with regard to Schedule 7 criteria in Table 3.1. A description of demolition works associated with the proposed development is provided in Section 2.2.3
(b) A description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	A description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected is in Section 1.1 and has been assessed with regard to Schedule 7 criteria in Table 3.1.
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.	A description of the aspects of the environment likely to be significantly affected by the proposed development has been assessed with regard to Schedule 7 criteria in Table 3.1.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from:  The expected residues and emissions and the production of waste, where relevant, and	A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from the expected residues and emissions associated with the proposed development has been assessed with regard to Schedule 7 criteria in Table 3.1.
(a) The use of natural resources, in particular soil, land, water and biodiversity.	A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from the use of natural resources, in particular soil, land, water and biodiversity has been assessed with regard to Schedule 7 criteria in Table 3.1.
4. The compilation of the information at paragraphs (1) to (3) shall take into account, where relevant, the criteria set out in Schedule 7.	The criteria as set out in Schedule 7 is addressed in Section 3.2 and compilation of information in paragraphs (1) to (3) is in Section 2. This information has been assessed with regard to Schedule 7 in Table 3.1 of this report.

When assessing the proposed development with relation to Schedule 7A criteria listed in Section 3.3.1 and Table 3.2, it was noted that all aspects were already covered in the information provided under Schedule 7 and as such no additional assessment under Schedule 7A was considered necessary.



### 3.3 Impact Characterization

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

However, as detailed in Table 3.1, there are some potential slight negative impacts associated with the proposed works which relate specifically to ecology, biodiversity and water quality. Prior to any remediation works, it is noted that leachate monitoring results showed multiple parameters exceeded the EPA Interim Guideline Values (IGVs) for Groundwater. Elevated levels of ammonia, iron, manganese and chromium were also recorded in the surface water monitoring results. Similarly, the potential for effects on water quality arising from fuel or oil and riverbank destabilisation resulting from instream spread of Japanese knotweed could not be excluded. These indirect effects, via water quality, could occur on the key species for which the Lower River Suir European site has been designated. In the event of these occurrences, the river network downstream including the Lower River Suir SAC could be indirectly damaged by changes in turbidity and water quality.

Whilst it has been acknowledged that there could be potential for the proposed historical landfill remediation to have significant effects on Lower River Suir SAC, with the implementation of the detailed mitigation measures identified in this NIS and set out in Condition 3 of the certification of authorisation, it is concluded beyond reasonable scientific doubt that the integrity of Lower River Suir SAC will not be adversely affected. The findings of this NIS are in line with the EPA stage two AA determination to allow the grant of the CoA. On the basis of objective scientific information, the proposed development will not, either alone or in combination with other plans or projects, adversely affect any of the constitutive interests of the Lower River Suir SAC, in light of the site's conservation objectives.

The potential impact to the local population is limited to the construction phase, who are likely to be slightly affected by elevated activity, noise and visual effects due to the works. However, this is temporary, and the works area will be fully reinstated upon completion of the works. Mitigation measures will be implemented to prevent, minimize and control such impacts. The effects are not likely to be significant.

There is 1 no. entry on the Record of Monuments and Places located within the subject site boundary: An Enclosure (TS067-003----). An Archaeological Test Trenching & Assessment Report was prepared in respect of the subject lands in 2005 by AEGIS Archaeology Limited which concluded the following:

*'although the site is located within the zone of potential interest, and in fact is on top of the archaeological site T1067-003---, a possible enclosure, the testing results suggest that the possible enclosure is no longer extant (if indeed one existed on the site) and is now covered in a substantial depth of fill.'*

In this context, the following mitigation was suggested:

*'That all ground works associated with the development be archaeologically monitored in case isolated subsurface unrecorded archaeological features or artefacts relating to the possible enclosure are revealed.'*

The above mitigation measure will be adopted as part of the proposed remediation works; thus, no significant impact is likely.

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

## 4. CONCLUSION

The Requirement for the EIA of various types of development are transposed into Irish legislation under the Planning and Development Act and the Planning and Development (Amendment) Regulations 2001-2021. Schedule 5 lists the different project types, and this is not a project type that mandatorily requires an EIA.

The subject works which relate to the remediation of a historic landfill, located to the north of Tipperary Town does not individually or cumulatively fall into a class of development set out in Schedule 5, Part 1 and 2 of the Planning and Development Regulations 2001 - 2021 (as amended) and therefore, the requirements for a mandatory EIA can be screened out.

However, sub-threshold EIA may be required where the project would be likely to have significant effects on the environment. Criteria for the consideration of sub-threshold EIA is set out in Schedule 7 and Schedule 7A of the Planning and Development Regulations 2001 - 2021 (as amended). These criteria have been set out within this document with respect to the subject development.

As above-mentioned, there could be potential for the proposed historical landfill remediation to have significant effects on the Lower River Suir SAC, however with the implementation of the detailed mitigation measures identified in the accompanying NIS, it is concluded beyond reasonable scientific doubt that the integrity of the Lower River Suir SAC will not be adversely affected.

Potential impacts to the receiving environment during construction have been set out. Slight air quality and noise impacts are likely during the construction phase of the project due to the operation of construction machinery and the carrying out of other construction activities. These impacts will be prevented, minimized and controlled through a comprehensive set of mitigation measures, which are defined in the Construction Environmental Management Plan which adjoins this application. Slight visual impacts as a result of the subject development during construction are noted, however, these impacts are not considered significant with regard to the visual vulnerability of the area, given the site is not visible to many people and given the lack of an impact on designated scenic views. Notwithstanding this, it is noted that the subject works will significantly improve the visual appearance of the site as a whole once remediation works are completed.

It is therefore submitted that sub-threshold EIA is not required for the subject remediation works, due to the project's limited impact on the receiving environment with respect to Schedule 7 of the Planning and Development Regulations 2001-2018, Annex II of the EIA Directive and the screening checklist provided in the EC guidance document for EIA Screening, as set out in this document.

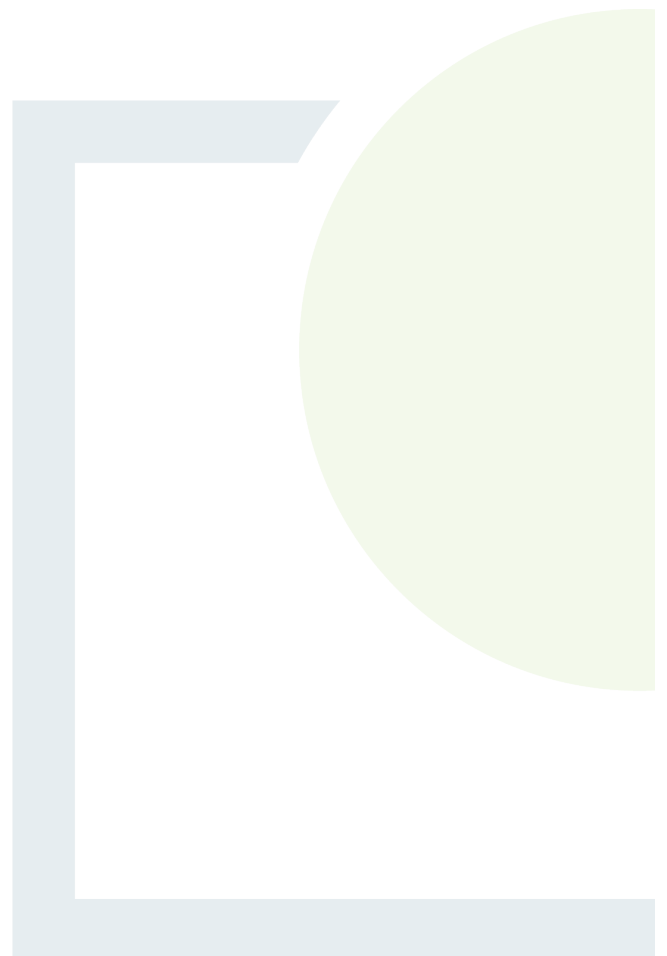




CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING

## APPENDIX 1

Certificate of Authorisation  
(Licence number: H0004-01)





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

## Closed Landfill Certificate of Authorisation

<b>Certificate of Authorisation Number:</b>	H0004-01
<b>Certification of Authorisation Holder:</b>	Tipperary County Council
<b>Location of Facility:</b>	Carrownreddy Tipperary Town County Tipperary







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

**HISTORIC LANDFILL**

**CERTIFICATE OF AUTHORISATION**

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

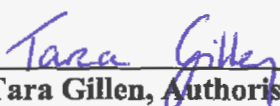
Reference Number: **H0004-01**

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

A copy of the Decision is attached.

**Sealed by the Seal of the Agency on this the 6<sup>th</sup> day of February, 2019**

**PRESENT when the seal of the Agency  
was affixed hereto:**

  
Tara Gillen, Authorised Person



## Glossary of Terms

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

<b>Agency</b>	Environmental Protection Agency.
<b>Agreement</b>	Agreement in writing.
<b>Annually</b>	At approximately twelve-monthly intervals.
<b>Application</b>	The application by the local authority for this Certificate of Authorisation including the risk assessment, any amendments to the risk assessment, additional information received from the local authority and other documents provided by the local authority.
<b>Certificate of Authorisation</b>	Includes this document and the application.
<b>Closed landfill</b>	As defined in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.
<b>Code of Practice</b>	As defined in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.
<b>Biannually</b>	All or part of a period of six consecutive months.
<b>Documentation</b>	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this Certificate of Authorisation.
<b>Drawing</b>	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this Certificate of Authorisation.
<b>Environmental Pollution</b>	As defined in the Waste Management Act 1996 as amended.
<b>Incident</b>	The following shall constitute an incident for the purposes of this Certificate of Authorisation: <ul style="list-style-type: none"><li>(i) an emergency;</li><li>(ii) any emission which does not comply with the requirements of this Certificate of Authorisation;</li><li>(iii) any trigger level specified in this Certificate of Authorisation which is attained or exceeded; and</li><li>(iv) any indication that environmental pollution has, or may have, taken place.</li></ul>

<b>Inert Waste</b>	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.
<b>Maintain</b>	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.
<b>Necessary Measures</b>	As defined in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.
<b>Risk Assessment</b>	As defined in the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.
<b>Sample</b>	Unless the context of this document indicates to the contrary, the term sample or samples shall include measurements taken by electronic instruments.
<b>The Local Authority</b>	Tipperary County Council, County Hall, Clonmel, County Tipperary.
<b>Trigger Level</b>	A parameter value the achievement or exceedance of which requires certain actions to be taken by the local authority.

## Part I Authorisation of a closed landfill

The Environmental Protection Agency (the Agency) grants, under Regulation 7(6) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008 (the Regulations), this Certificate of Authorisation to Tipperary County Council, County Hall, Clonmel, County Tipperary, in respect of the closed landfill at Carrownreddy, Tipperary Town, County Tipperary, subject to conditions set out in Part II and the Reasons for the Decision in Part III.

## Part II Conditions

### Condition 1. Scope

- 1.1 For the purposes of this Certificate of Authorisation, the closed landfill authorised by this Certificate of Authorisation is the area of land outlined in red on Drawing No. P0563-INFO-0001 Rev. A, dated 05.11.18, submitted with the application. Any reference in this Certificate of Authorisation to “closed landfill” shall mean the area thus outlined in red. Activities associated with the closed landfill shall be carried on only within the area outlined.
- 1.2 No waste shall be accepted at the closed landfill.
- 1.3 No waste shall be burned at the closed landfill.
- 1.4 The facility shall be controlled, operated and maintained, and emissions shall take place as authorised by this Certificate of Authorisation. No material change that will result in an increase in the actual or potential nature or quantity of any emission shall be carried out or commenced without the agreement of the Agency.
- 1.5 Nothing in this Certificate of Authorisation shall prohibit authorised beneficial uses of the site of the closed landfill that do not interfere with the integrity of the remediation measures adopted.

<i>Reason:</i> To clarify the scope of this Certificate of Authorisation.
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### Condition 2. Notifications, Records and Reports

- 2.1 The local authority shall notify the Agency as soon as practicable after the occurrence of any incident. The incident notification shall be provided in a format as may be specified in relevant guidance issued by the Agency.
- 2.2 The local authority shall keep the following documents available for inspection by the Agency at all reasonable times and to members of the public by request:
  - 2.2.1 Records of all sampling, analyses, measurements, examinations, calibrations and maintenance;
  - 2.2.2 Records of incidents;
  - 2.2.3 Records of all complaints of an environmental nature;
  - 2.2.4 The validation report prepared on completion of the remediation; and

2.2.5 Other documentation required by this Certificate of Authorisation or as may be otherwise directed by the Agency.

2.3 Environmental Liabilities

The local authority shall put in place and maintain a financial provision for costs of likely events or accidents/incidents related to the closed landfill and associated works.

2.4 The local authority shall annually pay to the Agency €1,100, or such sum as the Agency from time to time determines in accordance with charges policy, for the performance of its functions under the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008 in relation to the closed landfill regulated by this Certificate of Authorisation.

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

### Condition 3. Management and Monitoring

3.1 The local authority shall implement the following measures within 12 months of the date of grant of this Certificate of Authorisation, or as otherwise agreed by the Agency.

- a) prepare and implement a programme of 24-hour pumping trials for seven days, at least 3 gas yielding monitoring locations (12% v/v or above) to determine the quantity and characteristics of the landfill gas. This programme shall be submitted to the Agency and approval obtained in advance of implementation. The monitoring programme shall be completed within 4 months of the date of this certificate of authorisation.
- b) in the event that methane values consistently exceed 12% v/v, install measures for extracting and treating landfill gas by flaring or another suitable technique that is satisfactory to the Agency.
- c) install a low permeability landfill cap, minimum 500mm.
- d) install gas protection measures including the installation of a landfill gas cut-off trench along the southern boundary of the capped landfill area.
- e) unless otherwise agreed by the Agency, install gas vents in the landfill body at appropriate locations such that the increased back-pressure caused by the cap does not result in increased lateral movement of gas.
- f) minimise the disturbance of deposited waste to the extent possible.

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

3.3 The local authority shall compile a validation report in accordance with the requirements of the Code of Practice. Unless otherwise agreed, the validation

- report shall be submitted to the Agency within 30 months of the date of grant of this Certificate of Authorisation.
- 3.4 The local authority shall assess the results of all monitoring carried out to confirm whether the closed landfill continues to achieve the objectives set for it in the risk assessment or this Certificate of Authorisation.
- 3.5 The local authority shall annually conduct and record:
- a) a visual inspection of the landfill to ensure that the condition of the site has not deteriorated;
  - b) monitoring for leachate (sample, analyse, characterise, and measure the level of leachate) in all leachate monitoring boreholes;
  - c) monitoring to detect the presence and concentration of landfill gas in all monitoring boreholes;
  - d) monitoring (sample, analyse and characterise) of relevant surface waters both upstream and downstream of the closed landfill;
  - e) monitoring (sample, analyse and characterise) of groundwater from at least three available groundwater monitoring boreholes, two of which shall be downgradient of the closed landfill; and
  - f) the assessment of monitoring results against trigger levels and/or standard reference values for relevant pollutants including environmental quality standards in the European Communities Environmental Objectives (Surface Waters) Regulations 2009 and European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended.
- 3.6 The following are the trigger levels for landfill gas emissions from the facility measured in any service duct or manhole on, at or immediately adjacent to the facility and/or at any other point located outside the body of the waste:-
- a) Methane, greater than or equal to 1.0% v/v; or
  - b) Carbon dioxide, greater than or equal to 1.5% v/v.
- 3.7 In relation to surface emissions measured over the waste body and identified features, the following shall constitute a trigger level:-
- a) VOC greater than or equal to 50ppmv as methane average over capped area; or
  - b) VOC greater than or equal to 100ppmv as methane instantaneous reading on open surfaces within the landfill footprint; or
  - c) VOC greater than or equal to 500ppmv as methane around all identified features.
- 3.8 The location, frequency, methods and scope of monitoring, sampling and analyses, as set out in this Certificate of Authorisation, may be amended with the agreement of the Agency.
- 3.9 Soil and stone imported for use in remedial, corrective or other engineering works at the closed landfill shall be greenfield soil and stone or soil and stone of equivalent nature and character in terms of chemical and physical contamination.

Documented acceptance, storage/stockpiling and utilisation procedures shall be operational in advance of receipt of such materials. Records shall be maintained showing the site of origin of the soil and stone and its nature.

- 3.10 No emissions, including odours and noise, from works carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
- 3.11 The local authority shall ensure that the closed landfill does not result in an impairment of, or an interference with, amenities or the environment at the facility or beyond the facility boundary (including those arising from emissions (including odours, noise, dust, litter and mud), vermin and birds).
- 3.12 Wells and boreholes
- 3.12.1 Groundwater monitoring wells shall be constructed having regard to the guidance given in the Agency's landfill manual "Landfill Monitoring".
- 3.12.2 All wellheads shall be adequately protected to prevent contamination or physical damage.
- 3.12.3 All wells & boreholes shall be adequately sealed to prevent surface contamination and, as may be appropriate, decommissioned in accordance with the UK Environment Agency guidelines "Decommissioning Redundant Boreholes and Wells", unless otherwise agreed by the Agency.
- 3.13 The local authority shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the risk assessment or this Certificate of Authorisation. The requirement with regard to off-site points is subject to the prior agreement of the landowners concerned.
- 3.14 Incidents
- In the event of an incident the local authority shall immediately:
- (i) if necessary, contact the emergency services;
  - (ii) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
  - (iii) isolate the source of any such emission;
  - (iv) evaluate the environmental pollution, if any, caused by the incident;
  - (v) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
  - (vi) identify the date, time and place of the incident; and
  - (vii) notify the Agency (in accordance with Condition 2.1) and all other relevant authorities including, where relevant, the Water Services Authority and Inland Fisheries Ireland.

### 3.15 Communications

- a) The local authority shall establish, maintain and implement a communications programme to inform the occupiers and owners of land and buildings adjacent to the closed landfill of the risks posed by landfill gas and its migration.
- b) The local authority shall, as part of the communications programme, publish gas monitoring data quarterly in a manner accessible by the public.

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



## Part III: Schedules

### Schedule 1: Reasons for the Decision

In granting this certificate of authorisation, the Agency determines that the risk assessment submitted by the local authority as part of the application for a certificate of authorisation is adequate. To ensure appropriate protection for human health and the environment and to ensure conformity with the provisions of Council Directive 2006/12/EC and Council Directive 80/68/EC, the conditions set out in Part II of this certificate of authorisation are specified as further necessary measures in addition to those identified by the risk assessment.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at the Lower River Suir SAC (Site Code 002137).

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

- The closed landfill site is connected hydrologically to the Lower River Suir SAC (002137).
- Leachate monitoring results showed multiple parameters exceeded the EPA Interim Guideline Values (IGVs) for Groundwater.
- Elevated levels of ammonia, iron, manganese and chromium were recorded in the surface water monitoring results.

The Agency has completed the Appropriate Assessment of potential impacts on these sites and has made certain, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activity, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular the Lower River Suir SAC (002137), having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with the application and risk assessment, this certificate of authorisation and the conditions attached hereto for the following reasons:

- The Lower River Suir SAC (Site Code 002137) is located approximately 6.5km northeast, east & south of the historical landfill site. Given the distance and water monitoring results from site investigations, it is unlikely that the Carrownreddy closed landfill site and the proposed construction works present any significant risk to the Lower River Suir SAC (Site Code 002137).

- Specifically, the construction works will be undertaken to avoid the potential for water pollution and will ensure that there will be no significant impact on Lower River Suir SAC (002137).
- the project, alone or in-combination with other projects, will not adversely affect the integrity, and conservation status of any of the qualifying interests of the Lower River Suir SAC (002137).
- Condition 3.5 requires ongoing environmental assessment and monitoring.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of the European Sites: Lower River Suir SAC (002137).

## Part IV: SIGNATURE

**Sealed by the Seal of the Agency on this the 6<sup>th</sup> day of February 2019**

**PRESENT when the Seal of the Agency  
was affixed hereto:**

*Tara Gillen.*

**Tara Gillen, Authorised Person**









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