

Inspector's Report ABP-310522-21

Development	Landfill remediation works including site clearance, reprofiling, construction of surface water drainage system, landscaping and all ancillary works.
Location	Longacre and Newmarket, Newmarket Co Cork.
Local Authority	Cork County Council
Type of application	Application for approval made under Section 177(AE) of the Planning and Development Act
Observers	None
Date of site inspection	15 September 2021
Inspector	Mairead Kenny

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1.0 Introduction

Cork County Council is seeking approval from An Bord Pleanála under the provisions of section 177AE to undertake remediation works to a historic landfill site, Newmarket Closed Landfill.

The EPA in January 2012 issued a Certificate of Authorisation under the Waste Management (Certificate of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008.

In a screening determination by Cork County Council on May 2020 it was concluded that a Stage 2 Appropriate Assessment is required.

A Natura Impact Statement (NIS) accompanies the application.

An Environmental Impact Assessment screening report is enclosed.

2.0 **Proposed Development**

2.1. Description of Proposed Development

The subject development involves the remediation of this closed landfill site. This will entail removal of some of the site vegetation and removal of approximately 200 m³ waste (of an estimated 4000 m³), some site reprofiling and capping with imported soil and ancillary works.

The scope of the works is as follows:

- Installation of a **temporary compound**, site security and fencing.
- **Site clearance** involving demolition of a concrete loading bay and excavation and removal of site of exposed waste. This will include removal of vegetation in accordance with an Invasive Alien Species Management Plan (ISMP).
- **Preparation of surface** for placement of soil cover and capping layer.
- Excavation of estimated 200 m³ of exposed waste, for removal off-site.
- **Reprofiling of the site** to suitable contour level possibly involving redistribution of soil material on site.
- Importation of suitable additional material for use as capping material.
- Stockpiling and placing of subsoil and topsoil capping layer.

- Construction of a surface water drainage system.
- Landscaping.
- All ancillary site works including contractor demobilisation.
- 2.1.1. The design is stated to have been informed by the risk assessment which concluded that the existing risk from the closed landfill site was low. Following the requirements of the EPA Certificate of Authorisation the project is designed with reference to the EPA Landfill Design Manual 2000 and a cap of 500mm will be achieved.
- 2.1.2. When restoration works are complete and grass on site is established the site will be maintained and managed to ensure no deterioration to the river or groundwater body. The annual assessments set down under the requirements of the Certificate of Authorisation will be undertaken.
- 2.1.3. The site will be seeded with grass and will re-vegetate naturally.

2.2. Accompanying Documents

- 2.2.1. The plans and particulars submitted with the application include:
 - Planning Report
 - Engineering Report
 - EIA Screening Report
 - Outline Construction and Environmental Management Report
 - Invasive Alien Species Management Plan included as an appendix to the AA Screening Report.
 - Appropriate Assessment Screening Report incorporated as an appendix to the Natura Impact Statement
 - Application drawings.
 - A copy of the Certificate of Authorisation granted by the EPA which is included as an appendix to the Engineering Report.
 - Copies of public notification.

3.0 Site Location and Description

- 3.1. The site is approximately 1 km to the south-west of Newmarket, a small town in north Co Cork. The proposed development site (PDS) is separated from the main built up area of the town by rural lands and one-off housing and is accessed by a county road the L1109. The junction of this private laneway with the county road is close to a humpbacked bridge. There are 3 no. dwelling houses within 200 m of the PDS.
- 3.2. The site lies adjacent to the river Dalua which generally defines its western boundary. The river Dalua it is a tributary of the Allow which forms part of the Blackwater River (Cork/Waterford) SAC.
- 3.3. The proposed development site (PDS) may be described in two parts. The northern part comprises an access laneway which serves the site as well as the adjacent wastewater treatment plant. The local authority maintains a right of way over the private laneway. The lane is narrow but has an asphalt surface and is bounded by fencing which separates it from the adjacent agricultural lands, which are used for animal grazing. A 38 KV overhead line crosses this access road.
- 3.4. I refer to the second part of the site as the main body of the site. This is adjacent to and south of the town wastewater treatment plant. The main body of the site is in the ownership of the local authority.
- 3.5. The main body of the PDS is of estimated area of approximately 0.29 ha and contains a central elevated zone where waste was placed. The information on file suggests that waste disposal began at the site in the 1950s involving deposition of municipal solid waste, construction and demolition waste and possibly wastewater sludges and oil/barrels. When operational the landfill site had some limited public opening hours (2 hours per week) but there was limited use by the Council, apparently due to the access arrangements. The site was subject of a number of fires. It was closed for the purposes of waste intake in 1984. There is an estimated 4000 m³ of waste deposited at the site with a depth of up to 4 m. Across the site there is a clay cover of between 0.8 m and 3 m.
- 3.6. The central part of the main body of the site is now overgrown including with some scrub and trees and invasive plant species. The northern part of the main body of the site which adjoins the existing wastewater treatment plant is separated from the landfill area by a drain and hedgerow. The lands to the north of the drain are flat and

are generally at the same level as the wastewater treatment plant and agricultural lands. There is a hardcore track within the main body of the site and a disused concrete loading bay which are broadly located at the western side of the site and parallel to the river and are separated from the river by a densely vegetated berm. At the south-western corner of the main body of the site is an area of exposed waste. There is a steep incline from this location down towards the river. The remainder of the southern/south-eastern boundary of the site contains a steeply sloping wooded area with mature trees.

3.7. On-site there are leachate and gas monitoring wells and groundwater monitoring wells. The application documentation also identifies 3 no. surface water monitoring locations adjacent the River Dalua.

4.0 **Planning History and Consents**

- 4.1. Based on a search undertaken on 9 November 2020 no records of previous planning applications of relevance are reported by the applicant. I have reviewed the available records and can confirm that there are no significant extant permissions within 500m of the PDS.
- 4.2. Permission was granted by the Board for a solar farm development on an 8 hectare site 1km to the west of the PDS (PL.249377).
- 4.3. It was also determined under RL3531 that an underground grid connection is development and is not exempted development. I found no record of a subsequent planning application.
- 4.3.1. Under H0001 01 the EPA issued a Certificate of Authorisation under the Waste Management (Certificate of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008. This authorised the remediation, restoration and after-care of the landfill by the local authority and includes requirements to manage and monitor the landfill. The conditions of management include a condition that a validation report be prepared on completion of the necessary works to confirm satisfactory remediation has taken place. A copy of the Certificate of Authorisation is included in the applicant's Engineering Report (Appendix B).

4.3.2. As required in support of the Certificate of Authorisation application a risk assessment was prepared. A copy of the risk assessment is included in the applicant's Engineering Report (Appendix A).

5.0 Legislative and Policy Context

5.1. The EU Habitats Directive (92/43/EEC)

5.1.1. This Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) and 6(4) require an appropriate assessment of the likely significant effects of a proposed development on its own and in combination with other plans and projects which may have an effect on a European Site (SAC or SPA).

5.2. European Communities (Birds and Natural Habitats) Regulations, 2011

5.2.1. These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in CJEU judgements. The Regulations in particular require in Reg 42(21) that where an appropriate assessment has already been carried out by a 'first' public authority for the same project (under a separate code of legislation) then a 'second' public authority considering that project for appropriate assessment under its own code of legislation is required to take account of the appropriate assessment of the first authority.

5.3. Nature conservation designations

- 5.3.1. The European sites which may be within the zone of influence of the proposed development are:
 - Blackwater River (Cork / Waterford SAC (Site Code 002170)
 - Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code 004161)
 - Mullaghanish to Musheramore Mountains SPA (Site Code 004162)
 - Lower River Shannon SAC (Site Code 002165)

- Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC.
- 5.3.2. Three of these European sites are within 15km of the PDS:
 - Blackwater River (Cork / Waterford SAC (Site Code 002170)
 - Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code 004161)
 - Lower River Shannon SAC (Site Code 002165)
- 5.3.3. There are 2 proposed Natural Heritage Areas and 1 Natural Heritage Area within a 15km radius of the site as follows:
 - Priory Wood pNHA (Site Code 001072)
 - Banteer Ponds pNHA (Site Code 001036).
 - Lough Gay Bog NHA (Site Code 002454).

5.4. Planning and Development Acts 2000 (as amended)

- 5.4.1. Part XAB of the Planning and Development Acts 2000-2010 sets out the requirements for the appropriate assessment of developments which could have an effect on a European site or its conservation objectives.
 - 177(AE) sets out the requirements for the appropriate assessment of developments carried out by or on behalf of local authorities.
 - Section 177(AE) (1) requires a local authority to prepare, or cause to be prepared, a Natura Impact Statement in respect of the proposed development.
 - Section 177(AE) (2) states that a proposed development in respect of which an appropriate assessment is required shall not be carried out unless the Board has approved it with or without modifications.
 - Section 177(AE) (3) states that where a Natura Impact Assessment has been prepared pursuant to subsection (1), the local authority shall apply to the Board for approval and the provisions of Part XAB shall apply in the carrying out of the appropriate assessment.

- Section 177(V) (3) states that a competent authority shall give consent for a proposed development only after having determined that the proposed development shall not adversely affect the integrity of a European site.
- Section 177AE (6) (a) states that before making a decision in respect of a proposed development the Board shall consider the NIS, any submissions or observations received and any other information relating to:
 - The likely effects on the environment.
 - The likely consequences for the proper planning and sustainable development of the area.
 - The likely significant effects on a European site.

5.5. Guidance and Policy

5.5.1. National Planning Framework

5.5.1.1. National Strategic Outcome 9 refers to the sustainable management of water and other environmental resources. In relation to waste this includes the remediation of waste sites to mitigate appropriately the risk to environmental and human health.

5.5.2. Flood Risk Management Guidelines

- 5.5.2.1. Landfill developments would fall under the vulnerability class of Highly Vulnerable Development including essential infrastructure.
- 5.5.2.2. The guidelines set out the planning implications for flood zones A, B and C. Development in Flood Zone A should be avoided and/or only considered in exceptional circumstances such as city and town centres or in the case of essential infrastructure that cannot be located elsewhere and where the justification test has been applied.

5.5.3. Southern Regional Waste Management Plan 2005-2021

- 5.5.3.1. This sets out a role for local authorities in the region to remediate historic landfills.
- 5.5.3.2. Policy G2 is to roll out a plan for remediating historic closed landfills giving priority to those sites which pose highest risk to the environment and human health. The objective is set down that all local authority sites be remediated by Q1 of 2021.

5.5.4. Cork County Development Plan 2014 – 2020

- 5.5.4.1. The site is located in a rural area in a town greenbelt.
- 5.5.4.2. The landscape character area in which the site is located is Broad Marginal Middleground Valleys.
- 5.5.4.3. The local road to the west of Anne's Bridge is a designated scenic route, S 17.
- 5.5.4.4. Anne's Bridge is not listed as a protected structure.
- 5.5.4.5. Amongst the range of nature conservation, biodiversity and environmental policy set out, objectives GI 10-1 and GI 10-2 relate to the protection of water quality in line with the Water Framework Directive and to protect and improve the quality and status of surface waters in the county. Objective GI 10-3 relates to the protection of ground and surface waters.
- 5.5.4.6. HE 2-1 relates to sites which are designated for nature conservation including European sites, Natural Heritage Areas and proposed Natural Heritage Areas. To fulfil obligations outlined with regard to these sites the Council will carry out an appropriate level of assessment in accordance with the Habitats Directive.

5.5.5. Kanturk Mallow Municipal District Local Area Plan 2017

- 5.5.6. The subject site is within the Newmarket Greenbelt in relation to which objective NK– GB1–1 refers. Within these areas land is reserved for agricultural, open space and recreation use with limited potential to accommodate new residential development.
- 5.5.7. Section 2.2.33 refers to the significant challenges in accommodating new development whilst maintaining the water quality standards required to restore the favourable conservation status for freshwater pearl mussel.
- 5.5.8. Newmarket wastewater treatment plant is identified as being in need of an upgrade.

6.0 **Consultations**

6.1. Prescribed Bodies

- 6.1.1. The application was circulated by the local authority to the following bodies:
 - An Taisce
 - Department of Housing, Local Government and Heritage

- Department of Environment, Climate and Communications
- Department of Agriculture, Food and the Marine
- Environmental Protection Agency (EPA)
- Failte Ireland
- Irish Water
- The Heritage Council
- Inland Fisheries Ireland (IFI)
- Office of Public Works (OPW)
- The Health Service Executive (HSE)
- Electricity Supply Board (ESB)
- Kerry County Council
- Limerick City and County Council
- 6.1.2. A response was received from Department of Environment, Climate and Communications (Geological Survey Ireland). The issues raised are summarised as follows:
 - Notes the use of GSI datasets within the EIA screening report.
 - There are no unaudited County Geological Sites in the vicinity of the landfill remediation works.
 - The potential impact on specific groundwater abstractions and groundwater resources in general needs to be considered.
 - Landslide susceptibility ranges from moderately low to moderately high.
 - Enclosed is a list of publicly available datasets for use in the assessment.

6.2. Public Submission

6.2.1. No submissions received.

7.0 Assessment

7.1. Introduction

7.1.1. Section 177AE of the Act requires that where an appropriate assessment is required in respect of a development which is being carried out by or on behalf of a local authority that is the planning authority, the local authority shall prepare an NIS and shall apply to the Board for approval and the provisions of Part XAB shall apply.

The Board in making a decision in respect of the proposed development shall (*inter alia*) consider:

- The likely effects on the environment,
- The likely consequences for the proper planning and sustainable development in the area, and
- The likely significant effects of the proposed development upon a European Site. The structure of the assessment section of this report follows those three topics.

7.2. The likely effects on the environment

The applicant's EIA Screening Report concludes that there is no requirement for mandatory or sub-threshold EIA in respect of the proposed development. There is no provision under section 177AE of the Planning and Development Act 2000, as amended, to require Environmental Impact Assessment or to carry out a formal EIA Screening Determination for a local authority project, submitted under this section of the Act. No issues have been raised by any party in relation to EIA Screening. The application documentation includes Schedule 7A information. I emphasise that I have taken this into account solely as background information in my consideration of the likely effects on the environment. There is no role for the Board to consider EIA in its determination on this case.

Taking into account the environmental setting and the nature of the proposed development I consider that the likely effects of the proposed development on the environment can be assessed under the following headings:

- Population and human health
- Biodiversity
- Land, soil and water

- Air and climate
- Material assets
- Cultural heritage and landscape
- Risk of major accidents and disasters
- Environmental Impact Assessment
- Conclusion.

7.2.1. Population and human health

- 7.2.1.1. The former landfill has been closed for waste intake since the mid-80s. The evidence presented by the applicant and available on the EPA website is that the waste in situ is inert and the residual leachate is not impacting off-site receptors and negligible amounts of methane is being produced. Section 5.3.5 of the EIA screening report describes the risk assessment undertaken and notes that groundwater flow paths are short. The future regulation of the site by the local authority and EPA will involve management of the closed landfill to ensure the discharges and emissions do not cause environmental pollution or deterioration in the status of surface water or groundwater bodies. I consider that it is demonstrated that the proposed development will not give rise to threats to the status of the groundwater and will not impact any private wells in the vicinity. As such any related consequences for human health can only be positive.
- 7.2.1.2. There is a low level of residential development in the vicinity of the PDS. There is potential that the remediation of the site could give rise to odours, noise and dust or result in displacement of vermin all of which could adversely impact nearby residents and potentially affect human health. Having regard to the proposal set out under the Outline Construction Environmental Management Plan submitted and the terms of the CoA and the pattern of development in the area I consider that there is no risk of significant construction phase impacts on population and human health including with respect to odours, noise or dust. The development will be regulated by the implementation of a CEMP. Based on further consideration below under the topics of soil and water and air and climate, I conclude that there would be no significant effects on human beings as a result of construction of the proposed development.

- 7.2.1.3. I consider that the proposed development involving restoration of the former landfill is likely to result in long-term positive but not significant indirect benefits to the resident population and to human health.
- 7.2.1.4. Having regard to the circumstances prevailing and the terms of the licensing which are incorporate into the submitted OCEMP and the traffic management proposals discussed below, I consider that the Board can be satisfied that the remediation, restoration and management of the site will not give rise to significant effects on population and human health.

7.2.2. Biodiversity

- 7.2.2.1. This section solely concerns general biodiversity and in particular the potential for impacts on habitats and species which are not qualifying interests of European sites, that matter being reserved to the Appropriate Assessment section.
- 7.2.2.2. The potential loss of waste material and sediment as a result of earthworks on site is identified by the applicant as the main issue in relation to potential aquatic ecology impacts. The area of exposed waste is close to the river and in the corner of the site. The earthen berm in situ along much of the western site boundary is absent at this corner. The potential for impact on qualifying features of the SAC is discussed below in the Appropriate Assessment section of this report. The NIS reports the robust and effective mitigation measures to avoid and ameliorate impacts on qualifying interests which potentially could be impacted namely freshwater pearl mussel, salmon, lamprey and otter. These measures include adherence to guidelines for minimising impacts on water quality and fisheries including CIRIA C532, IFI and TII guidelines. Subject to the implementation of these mitigation measures the proposed development will not adversely affect aquatic ecology in general.
- 7.2.2.3. The on-site habitats of note are mixed broadleaved/conifer woodland and an area of recolonising bare ground. There is no report of rare plants and no recorded use of the site by rare birds. Subject to adherence to regulations relating to removal of trees and hedgerows the protection of breeding birds will be ensured. I do not consider that this matter needs to be addressed by a planning condition.
- 7.2.2.4. The removal of trees and vegetation within the relevant part of the site will constitute a minor biodiversity loss. Section 3.3 of the Planning Report states that after-care of the site will include mowing of the grassed area and that the local authority will

incorporate planting of native species to promote biodiversity. However, the statement in section 4.1.4.1 is that the site will be re-seeded with grass and will re-vegetate over time, which is more in keeping with comments in other submitted documentation wherein natural regeneration is referenced. I do not propose to address this matter by planning condition as the critical issue is the full and proper implementation of the after-care requirement set down under the CoA, the conditions of which are incorporated in the OCEMP.

- 7.2.2.5. As reported in 5.3.1.1 of the NIS site visits in July 2018 were undertaken for the purposes of mapping habitats and identifying key flora and fauna species within the site. It is specifically stated that the survey was extended to examine the potential of habitats to support species which are protected by law or which are of natural heritage importance including badger, red squirrel, pine marten and frog. Field boundaries were checked for badger setts and pine marten den sites and the suitability of habitats for pygmy shrew, hedgehog, hares, Irish stoat and pine marten. Although the documentation refers to the range of studies undertaken none of the original reports presented and very little information is provided relating to what was actually recorded. It is stated that incidental observations of hares were recorded but no other reference to mammals which may be present on the site.
- 7.2.2.6. There is no explicit reference in this section to bats and it is not clear if the site or the adjacent wood lands have been assessed for the potential to house roosts and whether any mitigation is warranted. In the absence of a bat survey which would set out appropriate mitigation it is not clear to me how the on-site vegetation and the works can be carried out while ensuring full protection of the annex IV species. As there are extensive powers and provisions for a derogation licences, I am satisfied that in the particular circumstances including the ten-week duration of works that the information submitted is sufficient and that there would be no adverse effects on bats. I note in the NIS that it is proposed to undertake a preconstruction survey for otter. I consider that a similar approach is also warranted to ensure the protection of all mammals of natural heritage importance and to ensure that the information is up to date in terms of the use of the site by mammals. The appointment of a site ecologist is an important measure and I have drafted a planning condition to this effect.
- 7.2.2.7. The presence of invasive species on site relates to winter heliotrope and cherry laurel. Winter heliotrope dominates part of the berm at the west of the site and is also

present adjacent the woodland to the east. Cherry laurel which is present in the mixed woodland to the east and south of the site. An outline invasive species management plan has been prepared and it reports on surveys from 2017 and 2018. The location of invasive alien species is mapped, and the preferred treatment options are described for both cherry laurel and winter heliotrope. The methods described make suitable provision to avoid adverse consequences from the spring of herbicide near the river. There is a requirement in addition that the contractor submit a method statement describing the exact nature of the approach, details of the herbicides and the methods of application. Subject to implementation of mitigation as described I am satisfied that the proposed development will not undermine the biodiversity values of the site area by the spread of invasive alien species.

- 7.2.2.8. Regarding Lough Gay Bog NHA, this upland bog is over 10 km north of the site and in a different river catchment. Priory Wood pNHA is 4 km east of Newmarket and in the valley of the Owenanare River. There is no potential connectivity between the proposed development and these habitats and therefore no potential for impacts. Banteer Ponds pNHA is within the Blackwater catchment and downstream of the site. It is listed under volume 2 of the 2014 Cork County Development Plan. There is considerable distance between the PDS and Banteer Ponds and having regard to the mitigation measures set out in the application, I am satisfied that the proposed development would not result in significant negative impacts on this site.
- 7.2.2.9. To conclude I consider that the documents submitted in general are lacking detail on the biodiversity value of the site although it is clear that this was assessed. It may be inferred that there was little use of the site other than by hare as reported but the information is not explicitly stated. I have considered whether further information request on this matter would be appropriate and consider that it would not be warranted. I do recommend that a range of follow-up ecological assessments be undertaken prior to commencement of work in view of the time which has passed since surveys were undertaken and the limited information presented in relation to the results of the surveys. The recommended condition seeks to address primarily the issue of follow-up surveys. I note that a measure has been set out relating to otter. I consider that similar measures are warranted in relation bats, badgers and other mammals and I have drafted a requirement in this regard.
- 7.2.2.10. Subject to implementation of the mitigation measures and to the recommended conditions I am satisfied that there would be no significant effects on biodiversity.

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7.2.3. Land, soil and water

- 7.2.3.1. The proposed development will not result in a significant change to land as after the works are complete the land will be allowed to regenerate. In terms of its appearance and use there will be no change. I consider that the reservation of this area for biodiversity enhancement is appropriate in the context of the former use of the site and the low population density in the area. There is no other more suitable use in my opinion. This after use is also required under condition of the CoA. In relation to the potential for impacts on land I also refer to the small size of the area of land (0.3 ha) to be remediated and the fact the woodland strip at the edge of the site will not be altered. There is no potential for significant effects on land.
- 7.2.3.2. The core objective of the scheme is to secure the remediation of a historic landfill preventing environmental problems. The CoA sets out the conditions under which the local authority is to remediate and manage the facility which is of particular relevance for the impacts on soil and water. The available information is that the existing landfill is not having a significant impact on groundwater quality or surface water quality. As no waste has been placed at the facility for decades the generation of leachate is minimal as has been verified by on site testing.
- 7.2.3.3. Earthworks involving excavation of a quantity of waste and sub- soils is an intrinsic part of the proposed development. Significant adverse effects will be avoided by removal of surplus subsoil to an appropriately licensed soil recovery facility and by implementation of a construction waste management plan. The proposed development would require importation of approximately 125 truckloads of soil to the site, which is not likely to result in significant impact on soils and geology in the region. There is no likelihood of impact on geological heritage sites.
- 7.2.3.4. There is potential during the construction phase for adverse effects on water and in particular in the event of silt run off and / accidental tipping of soil and waste during removal of waste at one corner of the site close to the river. Potential impacts on surface and groundwater resources will be mitigated by the adoption of a surface water management plan and other measures.
- 7.2.3.5. Subject to careful control of the construction phase and adoption of suitable measures in accordance with the guidance set out in the documentation, I am satisfied that the works can be suitably mitigated and that there is no likelihood of significant environmental effects on soil and water. On completion of works it is a

requirement of the EPA that a validation report be prepared to confirm satisfactory remediation has taken place. I conclude that any long-term impacts would be positive.

7.2.4. Air and climate

- 7.2.4.1. There is potential for dust effects which I consider would not be significant and which can be fully mitigated under the final adopted CEMP. In this respect I note that there is over 200m separation between the PDS and sensitive receptors.
- 7.2.4.2. The nature of the works would not involve significant effects on climate. The amount of traffic which would be generated would not be described as significant. The evidence available is that the existing former landfill is not giving rise to significant generation of methane or carbon dioxide, which is consistent with the type of waste, its age and the thickness of the deposit. The proposed development will not result in an increase in emissions.
- 7.2.4.3. I agree with the applicant's submission that due to the short duration of the works, the nature and scale of the proposed development and the pattern of development in the area, no significant noise impacts are likely.

7.2.5. Material assets

7.2.5.1. The proposed development involving movement of HGVs along a narrow third-class road close to a humpbacked bridge will require traffic management measures. There is potential for congestion and hazard given the conditions of the local road which include a very narrow entrance which poses difficulties for large vehicles. As described in the OCEMP the preparation of a Traffic Management Plan will be required and the contractor will have to utilise construction vehicles of appropriate size. Further requirements include the need to ensure that there is no damage to the nearby bridge in the event that this is part of the haul route. I have considered whether it would be appropriate to require by condition that the haul route exclude use of Anne's Bridge but consider that this matter is best reserved to be agreed between the contractor and the local authority. Subject to the prior agreement with the local authority of a traffic management plan as proposed I am satisfied that the proposed development is acceptable in terms of roads and traffic issues in there is no likelihood of significant effects.

- 7.2.5.2. The proposed development will not impact on utilities and services which are in the vicinity of the site. This would include electricity infrastructure which traverses the access track.
- 7.2.5.3. The remediation of land may be considered to constitute a slight positive effect in terms of material assets.

7.2.6. Cultural heritage and landscape

- 7.2.6.1. The proposed development would not directly affect buildings or structures of architectural merit. Anne's Bridge is not listed as a protected structure under the development plan, but it is recorded in the National Inventory of Architectural Heritage (NIAH) and is a recorded monument. The NIAH listing dates the single span bridge to between 1800 and 1840.
- 7.2.6.2. The subject site has a deposit of approximately 4 m depth of waste and apart from a small corner of the site this depth of overlying waste will be retained. In view of the nature of the proposed development and the history of the site I consider that it may be concluded that it is likely that the removal of a defined area of waste and the earthworks involved in levelling of the site will not have significant implications for archaeology. A standard condition on this issue is recommended.
- 7.2.6.3. The site does not lie within an area designated for high landscape value. There is a designated scenic route to the west of nearby Anne's Bridge. Given the nature of the proposed development and its location relative to this route and sensitive receptors including a low level of scattered residential development over 200 m from the site, no significant landscape or visual effects will occur.

7.2.7. Risk of Major Accidents and Disasters and Cumulative Impacts

7.2.7.1. The nature of the proposed development and the type of remediation involved do not result in a requirement for novel construction methodology. There is not a high risk of accidents subject to compliance with the normal health and safety and other best practice measures. I note that in addressing the risk of major accidents or disasters the EIA screening report references flood risk which is relevant to a very small part of the PDS. I consider that there is no risk of major accidents and disasters from flooding and that this matter is more properly considered under the heading of water.

7.2.7.2. I have reviewed the planning history in terms of the potential for cumulative impacts.I concur with the applicant's conclusion that there are no pathways and no potential for significant in-combination effects.

7.2.8. Conclusion.

7.2.8.1. Following consideration of the nature of the proposed development and its scale, the location of characteristics and the environmental receptors I conclude that there is no likelihood of significant effects on population and human health, biodiversity, land soil and water, air and climate, material assets and cultural heritage and landscape and that there is no risk of major accidents and natural disasters and no significant cumulative effects.

7.3. The likely consequences for the proper planning and sustainable development of the area

- 7.3.1. The remediation of historic landfill sites is a key objective within the Southern Regional Waste Management Plan. This application relating to the Newmarket Closed Landfill site constitutes the response of the local authority to the Certificate of Authorisation H0001 – 01 issued by the EPA on 25 January 2012 under the provisions of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008. The CoA authorises the remediation, restoration and after-care of the landfill by the local authority and includes requirements to manage and monitor the landfill to ensure that it does not cause environmental pollution. In principle the proposed development is the mechanism for the local authority to comply with legislative requirements. The proposed development supports a key objective of the Southern Regional Waste Management Plan.
- 7.3.2. The site is defined as being within a flood zone area under the CFRAMS and the Kanturk Mallow Municipal District LAP. The EIA screening report reports that a small section of the site is within Flood Zone A. Elsewhere it is reported that in practice the site is dry and that there is no knowledge of the site ever flooding. I have checked the relevant website in addition and note that there is no formal record of past flood event. I agree with the applicant's submission that on completion the proposed development would be compatible with any future flooding. As such I do not consider that the proposed development is contrary to the Flood Risk Guidelines or to the

Local Area Plan. However, the undertaking of works within an area which is susceptible to flooding would in general give rise to concerns relating to water quality impacts. In this respect the applicant's mitigation measures are sufficient and capable of implementation in my opinion. I address this matter in further detail in the appropriate assessment section below with a view to further considering the nature of the proposed mitigation measures and the likelihood of their successful implementation.

7.3.3. In conclusion I consider that the proposed development is in keeping with proper planning and sustainable development of the area and the prevailing policy context. As set out above the proposed development will not give rise to significant environmental effects. Long-term positive effects will result from the remediation and restoration of the site including through removal of exposed waste close to the river and increasing the depth of the capping. I agree with the overall conclusion set out in the Planning Report that the proposed development is a positive step in addressing a legacy site and would be in accordance with the proper planning and sustainable development of the area.

7.4. Appropriate Assessment

- 7.4.1. The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177U and S 177AE of the Planning and Development Act 2000 (as amended) are considered fully in this section. The areas addressed in this section are as follows:
 - Compliance with Article 6(3) of the EU Habitats Directive
 - Screening the need for appropriate assessment
 - The Natura Impact Statement and associated documents
 - Appropriate assessment of implications of the proposed development on the integrity each European site

7.4.2. Compliance with Article 6(3) of the EU Habitats Directive

7.4.2.1. The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given.

- 7.4.2.2. The proposed development is not directly connected to or necessary to the management of any European site and therefore is subject to the provisions of Article 6(3).
- 7.4.2.3. The requirements of Article 6(3) as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the Planning and Development Act 2000 (as amended) are considered fully in this section.

7.4.3. Background on the Application

- 7.4.3.1. The applicant has submitted a report entitled *Screening for Appropriate Assessment Report: Former Municipal Landfill Remediation, Newmarket* which was prepared by RPS in 2018 and which is presented as an appendix to the NIS.
- 7.4.3.2. I consider that the screening report is in line with current best practice guidance. It provides a description of the proposed development and identifies European Sites within a possible zone of influence of the development. I am satisfied that the report was prepared by a suitably qualified and experienced specialist with relevant expertise.
- 7.4.3.3. The proposed development will involve a four-month construction period and the contractor will be required to undertake the development in phases as described in section 1.4. The estimated volume of waste material at the site is 4000 m³ and it has been classified as inert. The imported material will also be inert. I consider that the description of the development in section 1.4 is comprehensive and sufficient to inform the screening report.
- 7.4.3.4. In terms of the baseline environment and potential for ecological receptors the screening report describes the invasive species present within the site and the qualifying interests which may be present in the vicinity. In terms of habitats and species of ecological value otter has been recorded at the nearby Anne's bridge close to the site. Aquatic ecology is reported in section 1.3.1 of the screening report.

7.4.3.5. The applicant's AA Screening Report conclusion is presented below.

'On the basis of the findings of this Appropriate Assessment Screening, it is concluded that the proposed Former Municipal Landfill Remediation Works, Newmarket:

- i. are not directly connected with or necessary to the management of a European site; and
- ii. may have significant effects on Brook lamprey [1096], River lamprey [1099] an sea lamprey [1095], Salmon [1106] and otter [1355], Annex II species for which Blackwater River (Cork / Waterford) SAC is designated. This is partly due to the proximity of the proposed works to the River Dalua, which is designated as part of the Blackwater River SAC, and the risk of run-off from the proposed works area to this receiving watercourse.

Therefore, applying the precautionary principle which requires that the conservation objectives of the European site should prevail where there is uncertainty and in accordance with Article 6(3) of the Habitats Directive, likely changes to Blackwater River (Cork/Waterford) SAC may arise from the proposed remediation works if robust and effective mitigation measures are not implemented.

It is evident that there may be significant impacts from the proposed Former Municipal Landfill Remediation Works, Newmarket, therefore due to this uncertainty, a Stage 2 'Appropriate Assessment' it is considered necessary.'

- 7.4.3.6. The Stage 2 Appropriate Assessment is contained in the report entitled Newmarket Closed Landfill Remediation Natura Impact Statement.
- 7.4.3.7. Section 6 examines the qualifying interest potentially impacted by the proposed development. It is considered that in the absence of mitigation measures potential indirect impacts could arise in relation to the following qualifying interests of the Blackwater River (Cork/Waterford) SAC :
 - Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]
 - freshwater pearl mussel [1029]

- White clawed crayfish [1092]
- Sea lamprey [1095]
- Brook lamprey [1096]
- River lamprey [1099]
- Atlantic salmon [1106]
- Twaite shad [1103]
- Otter [1355].
- 7.4.3.8. A table of mitigation measures is presented in table 7 1. Conclusions on the integrity of the Blackwater River (Cork/Waterford) SAC are presented in section 8 and the concluding statement in section 8.3 may be summarised as follows:

'Provided that the above mitigation measures are implemented in full, the proposed development will not adversely affect the integrity of Blackwater River (Cork/Waterford) SAC in view of the site's conservation objectives and that the conservation status of the qualifying Annex I habitats and Annex II species will not be compromised by the remediation works directly, indirectly or cumulatively.

The conclusion of this NIS is that with the implementation of best practice and the recommended mitigation measures there will be no potential for direct, indirect or cumulative impacts arising from the proposed Former Municipal Landfill Remediation at Newmarket, Co. Cork either alone or in combination with any other plans or projects. The integrity of the Blackwater River (Cork/Waterford) SAC will not be adversely affected. No reasonable scientific doubt remains as to the absence of such adverse effects.'

7.4.3.9. Having reviewed the documents and submissions, I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites.

7.4.4. Screening for Appropriate Assessment

- 7.4.4.1. The proposed development is as described earlier in this report and in the application drawings and documents which include reports undertaken using suitable expertise and following site investigations.
- 7.4.4.2. The proposed development will require significant earthworks on lands adjacent the Blackwater River (Cork/Waterford) SAC. Clearance of vegetation across the site will be required excluding lands along the boundary with the river. There is an area of predominantly municipal waste (up to 300 m³) which is exposed and difficult to access but the preferred environmental option is considered to involve removal of some of the exposed waste and reprofiling and capping of some of the remainder.
- 7.4.4.3. Having regard to the above I consider that it may be concluded that the proposed development could give rise to significant effects on qualifying interests of the European sites due to the following:
 - loss of habitat
 - impacts from noise and disturbance
 - impacts on water quality
 - spread of invasive species
 - in combination impacts.
- 7.4.4.4. I consider that the proposed development is not directly connected with or necessary to the management of any European site.
- 7.4.4.5. The European sites which may be within the zone of influence of the proposed development are:
 - Blackwater River (Cork / Waterford SAC (Site Code 002170)
 - Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code 004161)
 - Mullaghanish to Musheramore Mountains SPA (Site Code 004162)
 - Lower River Shannon SAC (Site Code 002165)
 - Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC.

- 7.4.4.6. As the Blackwater River (Cork / Waterford) SAC is immediately adjacent the site and having regard to the nature of the works involved during construction there are clear potential source pathway receptor links between the proposed project and the designated site and potential for likely significant effects.
- 7.4.4.7. Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is located under 4 km to the west and north of the PDS and is an upland site which is designated solely for hen harrier. There are no potential source pathway receptor links between the proposed project and the designated site and no potential for likely significant effects.
- 7.4.4.8. Mullaghanish to Musheramore Mountains SPA is located 20 km to the south of the PDS and is an upland site which is designated solely for hen Harrier. There are no potential source pathway receptor links between the proposed project and the designated site and no potential for likely significant effects.
- 7.4.4.9. Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC is located 20 km to the south-west of the site. It is adjacent to the River Blackwater (Cork / Waterford) SAC but in a different catchment. There are no potential source pathway receptor links between the proposed project and the designated site and no potential for likely significant effects.
- 7.4.4.10. Lower River Shannon SAC is a large site located about 10 km north west of the PDS and there is no hydrological or habitat connectivity between the PDS and this European site. There are no potential source pathway receptor links between the proposed project and the designated site and no potential for likely significant effects.

European site (SAC/SPA)	QI/SCI	Location
Blackwater River (Cork / Waterford SAC (Site Code 002170)	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140]	Proposed development site adjoins this
	Perennial vegetation of stony banks [1220] Salicornia and other annuals colonising mud and sand [1310]	European site.

	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	
	Mediterranean salt meadows (Juncetalia maritimi) [1410]	
	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	
	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	
	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	
	Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	
	Austropotamobius pallipes (White-clawed Crayfish) [1092]	
	Petromyzon marinus (Sea Lamprey) [1095]	
	Lampetra planeri (Brook Lamprey) [1096]	
	Lampetra fluviatilis (River Lamprey) [1099]	
	Alosa fallax fallax (Twaite Shad) [1103]	
	Salmo salar (Salmon) [1106]	
	Lutra lutra (Otter) [1355]	
	Trichomanes speciosum (Killarney Fern) [1421]	
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code 004161)	Hen Harrier Circus cyaneus [A082]	3.9 km to the north- west
Killarney National Park, Macgillycuddy's Reeks and	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	20km to the south west
Caragh River Catchment SAC (Site code 000365)	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]	
	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	
	Northern Atlantic wet heaths with Erica tetralix [4010]	
	European dry heaths [4030]	
	Alpine and Boreal heaths [4060]	
	Juniperus communis formations on heaths or calcareous grasslands [5130]	
	Calaminarian grasslands of the Violetalia calaminariae [6130]	

	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	
	Blanket bogs (* if active bog) [7130]	
	Depressions on peat substrates of the Rhynchosporion [7150]	
	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	
	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	
	Taxus baccata woods of the British Isles [91J0]	
	Geomalacus maculosus (Kerry Slug) [1024]	
	Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	
	Euphydryas aurinia (Marsh Fritillary) [1065]	
	Petromyzon marinus (Sea Lamprey) [1095]	
	Lampetra planeri (Brook Lamprey) [1096]	
	Lampetra fluviatilis (River Lamprey) [1099]	
	Salmo salar (Salmon) [1106]	
	Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]	
	Lutra lutra (Otter) [1355]	
	Trichomanes speciosum (Killarney Fern) [1421]	
	Najas flexilis (Slender Naiad) [1833]	
	Alosa fallax killarnensis (Killarney Shad) [5046]	
Mullaghanish to Musheramore Mountains SPA (Site Code 004162)	Hen Harrier Circus cyaneus [A082]	20 km to the south
Lower River Shannon SAC (Site Code 002165)	Sandbanks which are slightly covered by sea water all the time [1110]	Closest point is an
	Estuaries [1130]	upland area 10 km to the
	Mudflats and sandflats not covered by seawater at low tide [1140]	east.
	Coastal lagoons [1150]	
	Large shallow inlets and bays [1160]	
	Reefs [1170]	
	Perennial vegetation of stony banks [1220]	
	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	
	Salicornia and other annuals colonising mud and sand [1310]	
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Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	
[1330]	
Mediterranean salt meadows (Juncetalia maritimi) [1410]	
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	
Molinia meadows on calcareous, peaty or clayey-silt- laden soils (Molinion caeruleae) [6410]	
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	
Petromyzon marinus (Sea Lamprey) [1095]	
Lampetra planeri (Brook Lamprey) [1096]	
Lampetra fluviatilis (River Lamprey) [1099]	
Salmo salar (Salmon) [1106]	
Tursiops truncatus (Common Bottlenose Dolphin) [1349]	
Lutra lutra (Otter) [1355]	

- 7.4.4.11. Having regard to the applicant's submissions and the information available on the NPWS website, the nature and scale of the proposed development and likely effects, separation distances and pathways between the proposed works and the European site and its conservation objectives, I consider that a Stage 2 Appropriate Assessment is required for the following European site:
 - River Blackwater (Cork / Waterford) SAC (Site Code 002170).
- 7.4.4.12. No measures designed or intended to avoid or reduce any harmful effects of the project on a European Site have been relied upon in this screening exercise.

7.4.5. Stage 2 Appropriate Assessment

7.4.5.1. Following the screening process, it has been determined that Appropriate Assessment is required as it cannot be excluded on the basis of objective information that the Newmarket Closed Landfill Remediation individually or incombination with other plans or projects will have a significant effect on the River Blackwater (Cork / Waterford) SAC (Site Code 002170). 7.4.5.2. The NIS examines and assesses potential adverse effects of the proposed development on the conservation objectives for the European Site. I consider that the information supplied is adequate. It is clear that the NIS was prepared in line with current best practice and utilising appropriate expertise. It relies on the detailed information presented in relation to the baseline environment including the volumes, location and nature of the waste on site as well as the site topography and the challenges it poses in containing and removing the waste. The documentation presented also is clear in terms of the nature of the proposed development and the detail of the works in particular the removal of site vegetation, the approach to capping and the extension to surface water drainage measures within the site. I consider that there has been adequate examination of the site in terms of the potential for direct or indirect impacts on qualifying interests. The NIS therefore contains a comprehensive assessment of potential pathways and effects.

7.4.6. Appropriate Assessment of implications of the proposed development

- 7.4.6.1. The following is a summary of the objective scientific assessment of the implications of the project on the qualifying interest features of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed.
- 7.4.6.2. In the foregoing I have had regard to relevant guidance including the publication of DoEHLG (2009), Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service and the document of EC (2002), Assessment of Plans and Projects significantly affecting Natura 2000 sites. Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC.

7.4.7. European Site - River Blackwater (Cork / Waterford) SAC

7.4.7.1. The site-specific conservation objective for River Blackwater (Cork / Waterford) SAC (Site Code 002170) is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected which are listed in the table below and which are defined by a range of attributes and targets for each of the qualifying interests. Full details of the

conservation objectives for the SAC are set out in the publication of NPWS of 31 July 2012 (Version 1.0).

European site (SAC/SPA)	Qualifying Interests
Blackwater River (Cork / Waterford SAC (Site Code 002170)	Estuaries [1130]
	Mudflats and sandflats not covered by seawater at low tide [1140]
	Perennial vegetation of stony banks [1220]
	Salicornia and other annuals colonising mud and sand [1310]
	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
	Mediterranean salt meadows (Juncetalia maritimi) [1410]
	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]
	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno- Padion, Alnion incanae, Salicion albae) [91E0]
	Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]
	Austropotamobius pallipes (White-clawed Crayfish) [1092]
	Petromyzon marinus (Sea Lamprey) [1095]
	Lampetra planeri (Brook Lamprey) [1096]
	Lampetra fluviatilis (River Lamprey) [1099]
	Alosa fallax fallax (Twaite Shad) [1103]
	Salmo salar (Salmon) [1106]
	Lutra lutra (Otter) [1355]
	Trichomanes speciosum (Killarney Fern) [1421]

7.4.7.2. This is a large site covering an extensive area and a diverse range of habitats and species. There is potential for impact on qualifying species and habitats by way of loss of habitat, disturbance and/or reductions in water quality during the construction or operational phases and from spread of invasive species. The PDS adjoins the river Dalua which is a tributary of the Allow which confluences with the Blackwater. The Dalua River forms part of the SAC. As the PDS is adjoining and partially overlapping with the SAC it is considered that there is potential for direct and indirect connectivity.

7.4.8. The Natura Impact Statement

- 7.4.8.1. The NIS has been prepared having regard to relevant guidance and legislation which is set out. The stated objectives of the NIS include a focus on the suitability and importance of the study area for aquatic and semi aquatic qualifying interest species such as otter, salmon and lamprey. The NIS describes the results of habitat mapping of terrestrial and aquatic habitats and of surveys for qualifying interests within / adjacent the PDS. The aquatic ecology survey results are presented in Appendix C. The conservation objective maps are included in Appendix B. In table 4-2 the conservation status and main threats to qualifying interests are presented and in table 4-3 and table 4-4 the site-specific conservation objectives, attributes and targets for qualifying habitats and species are outlined. Section 5 of the NIS describes the existing environment based on a review of existing/desktop information on aquatic ecology, surface water quality and records of Annex II aquatic species and the reports of field surveys of terrestrial ecology and aquatic ecology.
- 7.4.8.2. Desktop information shows that the site is within a floodplain based on preliminary mapping but in practice the site is considered to be dry with no evidence of regular inundation from the river. Habitat surveys of the PDS indicate that none of the terrestrial habitats within the footprint of the proposed development and its immediate environs have affinity to qualifying interests habitats of the SAC.
- 7.4.8.3. The overall WFD status for the Dalua is 'good'. Immediately downstream of the PDS and Newmarket WwTP the Dalua is classified as being 'at risk' for unknown reasons. Surface water monitoring of the site is reported in section 5.2.3.1 wherein it is concluded that the landfill is not impacting on the water quality of the river.
- 7.4.8.4. There are no records of adult freshwater pearl mussel in the Dalua river but in earlier surveys pearl mussel glochidia were observed on the gills of trout within the lower reaches of the Dalua river. It is considered that there is no suitable habitat and that the Dalua river is not within the distribution range of freshwater pearl mussel and does not support suitable habitat. For these reasons a specific freshwater pearl mussel survey was not undertaken. The main channel of the Blackwater is subject to a Pearl Mussel Management Plan.
- 7.4.8.5. The main channel of the Blackwater at a location 17.5 km downstream of the landfill is a designated salmonid river. IFI surveys undertaken for kilometre downstream of the PDS recorded salmon as the most common species followed by brown trout,

European eel, lamprey (unknown species) and stone loach. Other surveys indicate that all three lamprey species utilise the Dalua. The detailed aquatic survey at 3 no. sites in the vicinity of the PDS was undertaken and the results are reported in section 5.3.2.2. A Q value of 4 was assigned. Salmonid and lamprey habitat were rated as good, and no invasive species were present.

- 7.4.8.6. The nearest records of white clawed crayfish are from 20 km downstream. No specific surveys for this species were undertaken but no white clawed crayfish were reported in the aquatic ecology surveys.
- 7.4.8.7. Otter has been previously recorded at Anne's Bridge. A targeted otter survey was conducted in June 2019 at the PDS and 240 m upstream and 200 m downstream. No evidence of otter including otter holts or resting places were recorded during the course of the site surveys. However, an otter print was observed on a sandbar 140 m upstream of the WwTP site during aquatic surveys. The PDS and river both provide suitable habitat.
- 7.4.8.8. The nearest record of Killarney fern as shown on map 10 of the conservation objectives is over 50 km from the PDS.

7.4.9. Impact Assessment

- 7.4.9.1. In my assessment of the conservation objectives for the qualifying interests that could be affected I take into account the site-specific conservation objectives, the information presented in the NIS and the suite of documents presented by the applicant. I will deal with each of the qualifying interests in the order in which they appear in the site-specific conservation objectives for the European site.
- 7.4.9.2. The following habitats which are qualifying interests are located over 80km downstream of the proposed development site:
 - Estuaries [1130]
 - Mudflats and sandflats not covered by seawater at low tide [1140]
 - Perennial vegetation of stony banks [1220]
 - Salicornia and other annuals colonising mud and sand [1310]
 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
 - Mediterranean salt meadows (Juncetalia maritimi) [1410]

- 7.4.9.3. No impact on these habitats is predicted given the distance and dilution and therefore significant effects on the above qualifying interests can be excluded without further consideration.
- 7.4.9.4. The habitat 'water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation' was not recorded in the Duala but it is considered that there is potential for impact on the habitat if present downstream of the site and potential impacts relating to effects on the substratum, increase in silt levels and nutrient levels could occur.
- 7.4.9.5. 'Old sessile oak woods with Ilex and Blechnum in the British Isles' is not present on site or nearby. As set out in the NIS there is no potential for impact on the attributes of this habitat in view of the 2.7 km distance and lack of connectivity between the project and oak woods in the area. I agree with this conclusion.
- 7.4.9.6. 'Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)' as set out in the NIS there is no potential for impact on the attributes of this habitat in view of the 2.7 km distance and lack of connectivity between the project and alluvial forests in the area. I agree with this conclusion.
- 7.4.9.7. As noted earlier the NIS explains the reason for not undertaking a specific survey for freshwater pearl mussel in the vicinity of the site. In earlier surveys pearl mussel glochidia were observed on the gills of trout within the lower reaches of the Dalua river. For this reason, I consider that the basis for the decision not to undertake specific surveys might have been better explained, including for example with respect to the nature of the habitat requirements. I note the information presented in section 4.1.4.1 of the Planning Report which refers to recent discussions on the possible variation of the conservation objectives and particularly the reference to the confirmation in supporting reports that there are no freshwater pearl mussel records within the Dalua. The applicant has indicated that there is no suitable habitat within the vicinity of the works. In view of all of this information I accept the conclusion presented and, in the circumstances, I do not recommend further information be requested requiring further surveys or more information on past surveys. There are potential impacts on freshwater pearl mussel at downstream locations 10.7 km from the PDS and applying the precautionary principle there is potential for the proposed works to impact some of the attributes relevant to the conservation objective. There is potential for impacts on the host fish in addition.

- 7.4.9.8. As described in the NIS there is potential for impacts on white-clawed crayfish taking into account the attributes of water quality, habitat quality/heterogeneity and potential for the proposed works to have an adverse effect on downstream populations.
- 7.4.9.9. Potential indirect impacts on brook lamprey, sea lamprey, river lamprey and salmon as a result of excess of sedimentation or mobilisation of contaminants are described in the NIS in terms of the relevant attributes. No direct impact is predicted in the absence of instream work although it is accepted that the species may be present in the river.
- 7.4.9.10. Twaite Shad is not likely to be present in the river but there is potential for temporary indirect impacts by way of sedimentation and/or water quality deterioration during construction.
- 7.4.9.11. The removal of on-site vegetation may give rise to temporary direct disturbance/habitat fragmentation to otter and there is also potential that holts will be established on the site. Potential impacts on fish biomass availability are possible although it is noted that the species is highly mobile.
- 7.4.9.12. Killarney fern will not be impacted by the proposed development due to the distance and lack of connectivity.
- 7.4.9.13. Based on the above it may be concluded that the qualifying interests which could be impacted by the proposed development are Atlantic salmon, brook lamprey, sea lamprey, river lamprey, twaite shad, otter, white clawed crayfish, freshwater pearl mussel and watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation.
- 7.4.9.14. There is no potential for in combination effects. I support the assessment of this issue as set out in section 6.5 of the NIS and following a review of the planning register held by the applicant and the records of An Bord Pleanála.

7.4.10. Mitigation

7.4.10.1. Water quality effects related to loss of sediment and waste material would potentially impact on Atlantic salmon, brook lamprey, sea lamprey, river lamprey, twaite shad, white clawed crayfish, freshwater pearl mussel, watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation and indirectly on otter in the event of loss of fish biomass. There is also potential for

disturbance to otter and direct impacts on holts which may have been developed within the site since the surveys.

- 7.4.10.2. Section 7 of the NIS sets out general measures to ensure avoidance of deterioration of water quality including best practice measures and adherence to relevant guidance, appointment of an environmental clerk of works with suitable authority and whose duties shall include regular review of forecasts of heavy rain in the preparation of relevant contingency plans. I am satisfied that these matters can be satisfactorily implemented on the site. Table 7 1 describes in summary the details of the mitigation measures which are proposed to ensure control of sediment loss and control of waste material, which are relatively routine in nature.
- 7.4.10.3. The spread of invasive species is described as being addressed by a preconstruction invasive species survey. I understand that to mean a follow-up survey to ensure eradication of species known to be present is completed before the works commence. Based on the information provided by the applicant I consider that the mitigation measure is suitable and that there is no risk of spread of invasive species provided the plan is adhered to.
- 7.4.10.4. The avoidance of loss of contaminated material or leachate to the river is specifically targeted and sandbags/silt fence will be maintained until vegetation of the re-profiled body of waste is well established and the risk of silt laden run-off minimised. From the application documentation submitted I consider that it is clear that the applicant is aware of and has presented appropriate construction measures to deal with the particular conditions on site including the steep incline to the river at the location where the expose waste is found.
- 7.4.10.5. In addition to the general measures there are a number of specific measures which relate to the avoidance of disturbance to otter. The main measure is the undertaking of pre-construction otter surveys to identify any changes in activity and holt locations. A section 25 derogation may be required. If otter holts are identified within proximity to the proposed works area the mitigation measures which are identified including no undertaking of works within 150 m of holts containing breeding females or cubs and otherwise within 20 m of active nonbreeding otter holts no use of wheeled or tracked vehicles.
- 7.4.10.6. Having regard to the mitigation measures presented I consider that impacts on water quality during construction would not be significant after mitigation and that this

potential impact pathway would not undermine the conservation objectives relating to brook lamprey, sea lamprey, river lamprey, Atlantic salmon, white clawed crayfish, freshwater pearl mussel, otter and Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation, or indirectly affect otter. I also conclude that there is no risks to the conservation objectives of the European site relating to the spread of invasive species or disturbance of otter.

7.4.10.7. Section 8 of the NIS further considers the integrity of the European site and the objective to maintain or restore the favourable conservation condition of the habitats and/or species for which it has been selected. I agree with the overall conclusion that the impacts to the qualifying interests can be readily mitigated. I consider that the conclusion that the integrity of the site will not be adversely affected is robustly demonstrated including in the integrity site checklist set out in table 8 – 1.

7.4.11. Appropriate Assessment Conclusion

7.4.11.1. I consider it reasonable to conclude on the basis of the information on the file, which I consider is adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the River Blackwater (Cork / Waterford) SAC (Site Code 002170), or any other European site, in view of their Conservation Objectives.

8.0 **Recommendation**

8.1. I recommend that the Board approve the proposed development subject to the reasons and considerations below and subject to the conditions set out.

9.0 Reasons and Considerations

In coming to its decision, the Board had regard to the following:

- (a) the EU Habitats Directive (92/43/EEC),
- (b) the European Union (Birds and Natural Habitats) Regulations 2011-2015,
- (c) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the

proposed development and the likely significant effects of the proposed development on a European Site,

- (d) the conservation objectives, qualifying interests and special conservation interests for the River Blackwater (Cork / Waterford) SAC (Site Code 002170),
- (e) the policies and objectives of the Southern Regional Waste Management Plan 2005-2021 particularly relating to the remediation of historic closed landfills,
- (f) the policies and objectives of the Cork County Development Plan, 2014-2020,
- (g) the nature and extent of the proposed works and the undertaking of those works under a certificate of authorisation granted by the EPA,
- (h) the information submitted in relation to the potential impacts on habitats, flora and fauna, including the Natura Impact Statement,
- (i) the report and recommendation of the person appointed by the Board to make a report and recommendation on the matter

Appropriate Assessment

The Board agreed with the screening assessment and conclusion carried out in the Inspector's report that the River Blackwater (Cork / Waterford) SAC (Site Code 002170) is the only European Site in respect of which the proposed development has the potential to have a significant effect.

The Board considered the Natura Impact Statement and associated documentation submitted with the application for approval, the mitigation measures contained therein, the submissions and observations on file and the Inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development for the affected European Site, namely the River Blackwater (Cork / Waterford) SAC (Site Code 002170)in view of the site's conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment. In completing the appropriate assessment, the Board considered, in particular, the following:

- i. the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,
- ii. the mitigation measures which are included as part of the current proposal, and

iii. the conservation objectives for the European Site.

In completing the appropriate assessment, the Board accepted and adopted the screening and the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Site, having regard to the site's conservation objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Site, in view of the site's conservation objectives.

Proper Planning and Sustainable Development/Likely effects on the environment

It is considered that, subject to compliance with the conditions set out below, the proposed development would not have significant negative effects on the environment or the community in the vicinity, would not give rise to a risk of pollution, would not be detrimental to the visual or landscape amenities of the area and would be acceptable in terms of traffic safety.

The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Conditions

 The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where any mitigation measures set out in the Natura Impact Statement or any conditions of approval require further details to be prepared by or on behalf of the local authority, these details shall be placed on the file and retained as part of the public record.

Reason: In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of the environment.

 The mitigation and monitoring measures outlined in the plans and particulars relating to the proposed development, shall be implemented in full or as may be required in order to comply with the following conditions. Prior to the commencement of development, details of a time schedule for implementation of mitigation measures and associated monitoring shall be prepared by the local authority and placed on file and retained as part of the public record.

Reason: In the interest of protecting the environment, the protection of European Sites and biodiversity and in the interest of public health.

3. Prior to the commencement of development, the local authority, or any agent acting on its behalf, shall prepare in consultation with the relevant statutory agencies, a Construction Environmental Management Plan (CEMP), incorporating all mitigation measures indicated in the Natura Impact Statement and demonstration of proposals to adhere to best practice and protocols.

The CEMP shall include a Traffic Management Plan which shall *inter alia* consider options for the haul route and the management of delivery vehicles in the vicinity of Anne's Bridge and at the site entrance.

Reason: In the interest of protecting the environment and in the interest of traffic safety.

4. The County Council and any agent acting on its behalf shall ensure that all plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

Reason: In the interest of the proper planning and sustainable development of the area and to ensure the protection of the European sites.

5. Prior to the commencement of development further surveys for mammals, including bats, shall be undertaken of the site and surrounding areas.

Reason: To ensure that the available information is up to date and the protection of biodiversity.

 A suitably qualified ecologist shall be retained by the local authority to oversee the site clearance and construction of the proposed development. The ecologist shall have full access to the site as required and shall oversee the implementation of mitigation measures arising from the preconstruction mammal surveys required under condition 5 and which are set out in the NIS.

Upon completion of works, an ecological report of the site works shall be prepared by the appointed ecologist to be kept on file as part of the public record.

Reason: In the interest of biodiversity and the protection of European sites.

7. The County Council and any agent acting on its behalf shall facilitate the preservation, recording, protection or removal of archaeological materials or features that may exist within the site. A suitably qualified archaeologist shall be appointed by the County Council to oversee the site set-up and construction of the proposed development and the archaeologist shall be present on site during construction works.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

Mairead Kenny Senior Planning Inspector

19 October 2021