



An  
Bord  
Pleanála

## Inspector's Report ABP-316135-23

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<b>Development</b>	Remediation works to a closed landfill.
<b>Location</b>	Kealanine, Coomhola, Bantry, Co. Cork.
<b>Applicant(s)</b>	Cork County Council
<b>Type of Application</b>	NIS Direction / Screening determination under the provisions of Article 250 of the Planning and Development Regulations, 2001, as amended.
<b>Date of Site Inspection</b>	5 <sup>th</sup> August, 2023
<b>Inspector</b>	Robert Speer

## 1.0 Introduction

- 1.1. Pursuant to Article 250(3) of the Planning and Development Regulations, 2001, as amended, Cork County Council is seeking a direction from An Bord Pleanála as to whether or not a Natura Impact Statement (NIS) is required to be prepared in respect of its proposal to carry out remediation works to a closed landfill at Kealanine, Coomhola, Bantry, Co. Cork.
- 1.2. The accompanying report entitled '*Screening for Appropriate Assessment*' prepared by the RPS Group on behalf of Cork County Council has concluded that the proposed works, either alone or in combination with other plans and / or projects, do not have the potential to significantly affect any European Site, in light of their Conservation Objectives, and thus Stage 2 Appropriate Assessment along with the preparation of an NIS is not required in this instance.

## 2.0 Background

- 2.1. In accordance with the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations (S.I. No. 524 of 2008), each local authority is required to identify all closed landfills within its functional area. A '*closed landfill*' is defined in these Regulations as a '*landfill site operated by a local authority for the recovery or disposal of waste without a waste licence on any date between 5 July 1977 and 27 March 1997 (i.e. prior to the entry into force of the Waste Management (Licensing) Regulations, 1997)*'. The Regulations also refer to the relevant code of practice for such sites, namely, the Environmental Protection Agency's (EPA) '*Code of Practice on Environmental Risk Assessment for Unregulated Waste Disposal Sites*'.
- 2.2. Under the Regulations, Cork County Council is obliged to carry out a risk assessment for all closed landfill sites having regard to the aforementioned Code of Practice and on completion of the risk assessment to make an application to the EPA for a Certificate of Compliance (also referred to as a Certificate of Authorisation or CoA). In this regard, the RPS Group reviewed the Draft Tier 2 and Tier 3 Risk Assessments previously completed by Cork County Council for the Kealanine closed landfill (i.e. the subject site) and undertook a risk assessment pursuant to the EPA Code of Practice. Account was also taken additional monitoring and analysis data

that had been collected during the period following the compilation of the draft Tier 2 & Tier 3 assessments. The review subsequently determined that a 'Moderate' risk classification was appropriate for the subject site and recommended that remedial works be submitted as part of the Certificate of Authorisation (CoA) application process.

2.3. In December, 2017, the EPA granted a Certificate of Authorisation (Ref. No. H0089-01) which authorised the proposed remediation works at the Kealanine Closed Landfill. Moreover, during its assessment of the application for the CoA, the EPA carried out a screening exercise which determined that the works in question did not necessitate Stage 2 Appropriate Assessment and thus the preparation of a Natura Impact Statement was not required (a copy of the screening determination is appended to the documentation provided to the Board). That screening exercise was based on the consideration of 8 No. European Sites and concluded that Stage 2 Appropriate Assessment was not required for the following reasons:

- The facility is not located within any of the listed European Sites;
- There will be no emissions of environmental significance from the activity;
- There is no hydrological connection between the facility and the European Sites;
- There are no connecting pathways between the facility and the European Sites for indirect effects to occur; and
- The activity will not result in damage to, or loss of, species and habitats of the European Sites.

2.4. During 2020 the Regional Waste Management Planning Office issued guidance to local authorities outlining the procedure to be followed in instances when the EPA had screened out the necessity for Stage 2 AA. It recommended that the local authority should request the Board to make a determination on the proposed development, the outcome of which would determine whether or not planning approval would be required for the works under Section 177AE of the Planning and Development Act, 2000, as amended. Accordingly, the subject request for an NIS Direction / screening determination has been lodged with the Board under the provisions of Article 250 of the Planning and Development Regulations, 2001, as amended.

### 3.0 Site Location and Description

- 3.1. The proposed development site is located in the rural townland of Kealanine, Coomhola, Bantry, Co. Cork, approximately 5km east-southeast of Glengarriff and 3.5km northwest of Ballylickey, where it occupies a position on the southern slope of Cobduff within the foothills of the Shehy Mountains (with Coomhola Mountain and Knockboy situated further northeast). Access is available via a narrow local roadway that extends c. 1.5km east from its junction with the N71 (Kenmare-Bantry) National Road with the Beara Gougane Barra Cycle Route passing by the site. The wider area is generally characterised by a rugged topography dominated by ridges of outcropping bedrock separated by lower lying scrubland, blanket peat deposits, and marshy ground. Surrounding marginal land is used for the rough grazing of sheep with a greater prevalence of lower order farmland and forestry plantations evident on travelling further east towards Coomhola Bridge and beyond.
- 3.2. The site itself has a stated site area of approximately 1.7 hectares, is irregularly shaped, and comprises a disused / closed landfill facility where waste deposition operations ceased in November, 1997. The raised waste mound lies behind a rock outcrop that broadly defines the southernmost limit of the landfill and was seemingly temporarily sealed with a thin covering of capping material in 1999 before being compacted and seeded. It has since revegetated with rushes over the top and sides of the mound as well as intermittent shrub, gorse & scrub growth while trees are well established at the base of the side slopes along the northern and southern site boundaries. Incidences of Japanese Knotweed (an invasive alien plant species listed in Part (1) of the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011, as amended) have been confirmed on site towards the north-eastern boundary as well as alongside the public road to the south. Concerns also arise that potential stands of Montbretia (named by the Department of Agriculture, Food and the Marine as an invasive plant that can displace native vegetation) may be present within the western part of the site (although further surveying during the growing season would be required to confirm the presence or absence of this plant species). Overhead lines traverse the north-eastern extent of the waste body and the access track leading from the public road (over which the local authority enjoys a right of way). A drainage ditch bounds the site to the north while a stream rises in an area of ground approximately 50m southwest of the

western site boundary before flowing in a northeasterly direction at a minimum distance of 15m from the southern base of the waste mound to join the Coomhola river c. 2km downstream.

- 3.3. Estimates suggest that the landfill contains in the region of 90,000m<sup>3</sup> of waste material including municipal waste, wastewater sludge, end-of-life vehicles and oily wastes (an unknown quality of oily waste originated from the oil spill following the Whiddy Island disaster) while a small quantity of offal is also reported to have been deposited within the site.

#### 4.0 **Proposed Development**

- 4.1. The proposed development comprises remediation works which were developed as part of an Environmental Risk Assessment that formed part of an application to the Environmental Protection Agency for a Certificate of Authorisation pursuant to the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008. On the 20<sup>th</sup> day of December, 2017 the EPA granted a Certificate of Authorisation (Ref. No. H0089-01) in respect of the development site, subject to conditions. The works proposed are intended to adhere to the requirements of the CoA (with particular reference to Condition No. 3 of that approval) and will consist of the following:

- Site clearance works in order to facilitate the reprofiling and capping works on site. This will include the removal of a significant spread of vegetation, particularly around the perimeter of the site, which will be shredded and retained on site, although the vegetated buffer between the southern site boundary and the tributary of the Coomhola will be maintained.
- The treatment of Japanese Knotweed with herbicide will continue as required until effective treatment is complete with no such material to be removed from the site. No excavation will occur within 7m of Japanese Knotweed and where clearance of scrub is required within this buffer, the scrub will be cut and the stumps treated to prevent re-growth.

The presence of Japanese Knotweed will be factored into the design of the capping and drainage works i.e. they will be designed to avoid the existing

stand of Japanese Knotweed. That area will be isolated and secured to ensure that there is no interaction or spreading of the material.

- Reprofilling of the site to facilitate surface water drainage and preparation for the capping layers. These works will involve the placement of imported subsoil to build up the toe of the slope around certain sections of the perimeter of the waste body, with particular reference to those areas with very steep side slopes. If necessary, soil will be placed over the working area being reprofiled at the end of each working day in order to minimise the potential for any airborne dust or debris emissions.
- Construction of a temporary access road to the south of the stream with a crossing point required to allow vehicles to access the areas around the toe of the landfill slopes and the areas directly north of the drain along the northern side of the landfill.
- The upgrading of the existing access track to the landfill from the public road as well as the culvert over the stream. This will involve the use of unbound crushed stone to improve the existing surface and reinforcement of the road over the culvert which will not require in-stream works.
- The capping of the landfill which will consist of the following:
  - The placement of 0.5m of soil (100mm topsoil and 400mm of subsoil)
  - The installation of a 0.5m drainage layer with a permeability of  $1 \times 10^{-4}$  m/s or equivalent geosynthetic material
  - The provision of a barrier layer comprising a compacted mineral layer 0.6m thick with a permeability of  $<1 \times 10^{-9}$  m/s or the use of a thinner geosynthetic material (LLDPE or geosynthetic clay liner) or similar that provides equivalent protection.

Where the LLDPE liner (if it is used) comes into direct contact with earthworks material, an intermediate layer of fine material (either sand, silt or clay but with a maximum particle size of 18mm) will be installed. Any sharp or coarse gravel etc. will be removed from the surface of the regulation layer before the installation of the LLDPE layer to reduce the risk of damage to the liner.

- A gas collection layer comprising a minimum of 0.3m of natural material or geosynthetic layer.
- The regrading and preparation of the waste mass at the edges of the proposed capping works (to allow for the proposed capping, the building up of the side slopes, and surface water drainage) and the anchoring of the capping system in trenches. All materials cut from the landfill as part of the excavations for the anchor trench works will be levelled and compacted in the vicinity of the trench or in the centre of the site.
- Landscaping of the site through the planting of grass seed over all topsoiled areas. A vegetative assemblage of annual and perennial native grass will be allowed to establish as early as possible in the restoration phase so as to stabilise the landfill slopes, mitigate or control moisture levels in the soil, and to control surface water runoff.
- The construction of a gas collection system with passive gas vents to allow for the release of gas from the landfill. This collection system may comprise wells and / or trenches and shall be tied into the gas collection layers of the capping system. Hand controlled shut-off valves will be installed on each passive gas vent 500mm above ground level. These shut-off valves will be gas-tight and when closed will not allow gas to be released from the vents.

A fully sealed gas monitoring / sampling port will be installed on each passive gas vent to allow for gas sampling within the borehole at all times.

- Drainage works including the filling and capping of an existing drain along the northern perimeter of the landfill and the construction of a new drain as part of the capping works. This new drain will capture runoff from the capped landfill as well as overland flow from those lands to the north of the site. It will be constructed outside the toe of the slope of the landfill (around the western side and south-western corner) and will connect to the stream to the south of the landfill. It is anticipated that an additional drain on the eastern side of the landfill may run alongside the existing access track. Both these drains will discharge to the existing stream to the south of the landfill.

Surface water from the area to the northeast of the landfill will most likely drain to the other surface water stream (from the higher ground to the north /

northeast of the site). Some of the surface water from the north-eastern section of the capped landfill will be directed towards this stream.

## **5.0 Legislative & Policy Context**

### **5.1. The Planning & Development Regulations, 2001, as amended:**

- 5.1.1. Article 250(1) states that in order to ascertain whether an appropriate assessment is required in respect of a development which it proposes to carry out, a local authority shall carry out a screening of the proposed development to assess, in view of best scientific knowledge, if the development, individually or in combination with other plans or projects, would be likely to have a significant effect on a European site. If on the basis of a screening under Article 250(1), it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, would have a significant effect on a European site, the local authority shall determine that an appropriate assessment of the proposed development is required and prepare an NIS and submit the proposed development for approval to the Board under section 177AE of the Planning and Development Act, 2000, as amended.

## **6.0 Request for a Direction and the Documentation Submitted**

- 6.1. This application for a determination under the provisions of Article 250 of the Planning and Development Regulations, 2001, as amended, was lodged on 23<sup>rd</sup> March, 2023 and has been accompanied by the following documentation:
- A covering letter prepared by RPS on behalf of Cork County Council (dated 21<sup>st</sup> March, 2023) which sets out the background to the project as well as providing an overview of the site context and the proposed works. The attached appendices include a copy of the 'Certificate of Authorisation' issued by the Environmental Protection Agency in respect of the subject site pursuant to the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008, and a copy of the 'Appropriate Assessment Screening Determination' undertaken by the EPA which served to inform its determination of the application for a 'Certificate of Authorisation'.



- A report entitled 'Kealanine Closed Landfill Remediation: Screening for Appropriate Assessment (AA)' prepared by RPS (January, 2023).
- A report entitled 'Former Municipal Landfill Kealanine: Report on Invasive Alien Species' prepared by RPS (March, 2018)
- Copies of the 'Site Location Map', 'Existing Site Layout' and 'Proposed Site Layout with Proposed Drainage Layout'.

## 6.2. **Screening for Appropriate Assessment:**

- 6.2.1. The report entitled 'Kealanine Closed Landfill Remediation: Screening for Appropriate Assessment (AA)' prepared by RPS on behalf of the local authority describes the proposed development, the receiving environment, and the assessment methodologies. It identifies a total of 7 No. European Sites within a 15km Zone of Influence and the potential ('remote and tenuous') pathways for indirect connectivity to the Glengarriff Harbour and Woodland Special Area of Conservation and the Sheep's Head Special Area of Conservation (via overland flow to a tributary of the Coomhola River which discharges to Bantry Bay). It subsequently identifies the possible implications of the proposed development on the European sites, before concluding that the proposal, either alone or in combination with other plans and / or projects, does not have the potential to significantly affect any European Site, in light of their Conservation Objectives, and thus Stage 2 Appropriate Assessment along with the preparation of an NIS is not required.

## 7.0 **Planning History:**

### 7.1. **On Site:**

None.

### 7.2. **On Adjacent Sites (to the immediate south):**

- 7.2.1. PA Ref. No. 016904 / ABP Ref. No. PL04.131128. Was granted on appeal on 15<sup>th</sup> August, 2008 permitting the Electricity Supply Board permission for the construction of new 38kV line(s) through the townlands of Ballylicky, Barnagearagh, Ardnacloghy, DromduffWest, Dromduff East, Cooryleary, Coorycommane, Kealanine, Derrycreigh, Dromgarriff, Derroograne, Derreenathirigy, and the alteration of an existing 38kV line in the townlands of Cooryleary and Dromgarriff, Co. Cork.

- PA Ref. No. 081495. Was granted on 2<sup>nd</sup> October, 2008 permitting the Electricity Supply Board an 'Extension of Duration' for the erection of 38kV Line(s) and alteration to existing 38kV Line at Ballylicky, Barnagearagh, Ardnacloghy, Dromduff East, Dromduff West, Cooryleary, Coorycommane, Kealanine, Derrycreigh, Dromgarraiff, Derroograne & Dereenathirigy, Co. Cork.
- PA Ref. No. 10523. Was granted on 10<sup>th</sup> September, 2010 permitting the Electricity Supply Board an 'Extension of Duration' for the erection of 38kV line(s) and alteration to existing 38kV line at Ballylicky, Barnagearagh, Ardnacloghy, Dromduff East, Dromduff West, Cooryleary, Corrycommane, Kealanine, Derrycreigh, Dromgarraiff, Derroograne & Dereenathirigy, Co. Cork.

## 8.0 Natura 2000 Sites in the Vicinity:

- 8.1. The following Natura 2000 sites have been identified within a zone of influence of 15km radius of the proposed development which could theoretically be affected by the proposed development:

<b>Natura 2000 Site</b>	<b>Distance from the Proposed Development</b>
Glengarriff Harbour and Woodland Special Area of Conservation (Site Code: 000090)	c. 2.0km west of the site
Derryclogher (Knockboy) Bog Special Area of Conservation (Site Code: 001873)	c. 3.8km north-northeast of the site
Caha Mountains Special Area of Conservation (Site Code: 000093)	c. 4.7km west of the site
Maulagowna Bog Special Area of Conservation (Site Code: 001881)	c. 11.8km northwest of the site
Cloonee and Inchiquin Loughs, Uragh Wood Special Area of Conservation (Site Code: 001342)	c. 12.9km northwest of the site
Sheep's Head Special Area of Conservation (Site Code: 000102)	c. 14.3km southwest of the site
Glanlough Woods Special Area of Conservation (Site Code: 002315)	c. 14.7km north of the site

- 8.2. European Sites located at a distance greater than 15km from the proposed development site are considered beyond the zone of influence of the proposed remediation works and thus significant effects on those Natura 2000 sites can be ruled out.

## **9.0 Screening for Appropriate Assessment**

### **9.1. Description of the Proposed Development:**

- 9.1.1. The proposed development comprises remediation works to a closed landfill at Kealanine, Coomhola, Bantry, Co. Cork, which were developed as part of an Environmental Risk Assessment that formed part of an application to the Environmental Protection Agency for a Certificate of Authorisation (CoA) pursuant to the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008. The works proposed are intended to adhere to the requirements of the CoA granted by the EPA on 20<sup>th</sup> December, 2017 (Ref. No. H0089-01) in respect of the development site, with particular reference to Condition No. 3 of that approval.
- 9.1.2. The proposed works include for the reprofiling, capping and landscaping of the closed landfill as well as the installation of a gas collection & venting system along with ancillary works such as site clearance works, the treatment of invasive plant species, and access improvements.
- 9.1.3. The proposal will also involve the alteration of the existing surface water drainage arrangements serving the site through the infilling and capping of an existing drainage channel / ditch along the northern perimeter of the landfill and the construction of a new drainage system as part of the capping works. Swales are to be constructed along the northern perimeter of the landfill with the easternmost section of same draining north-eastwards to a nearby stream via an existing drainage channel (which will be cleared of vegetation and a liner installed where required). The wider extent of this new swale arrangement will drain to a further swale and a filter drain to be constructed outside the toe of the slope of the landfill around its western and south-western perimeter. This new arrangement will capture runoff from the capped landfill as well as overland flow from those lands to the north and will discharge via a new outfall to an existing stream to the south of the site. It is

further anticipated that an additional drain on the eastern side of the landfill may be provided to run alongside the existing access track to the landfill from the public road which will also discharge to the stream to the south. The remainder of the flow paths serving site and its surrounds will remain unaltered (e.g. surface water from the higher ground to the north / northeast of the site will most likely continue to drain to the existing stream) although some of the runoff from the north-eastern section of the capped landfill and the upgraded site access will be directed towards the stream to the south via another new swale.

## **9.2. Site Context and the Receiving Environment:**

- 9.2.1. A report entitled 'Kealanine Closed Landfill Remediation: Screening for Appropriate Assessment (AA)' was prepared by RPS on behalf of Cork County Council which describes the proposed development, the receiving environment, and the assessment methodologies. It has been informed by a series of desk-top studies and survey work, including that undertaken as part of a generic quantitative risk assessment for the closed landfill which was based on site investigations and environmental monitoring carried out in 2010, 2011 & 2014 (with further monitoring and analysis data having been undertaken in the period since the compilation of the Draft Tier 2 and Tier 3 Risk Assessments in 2014).
- 9.2.2. The waste mound lies behind a rock outcrop that broadly defines the southernmost limit of the landfill. It has been covered in a thin covering of capping material which has since revegetated with rushes over the top and sides of the mound as well as intermittent shrub, gorse & scrub growth. Trees are well established at the base of the side slopes along the northern and southern site boundaries. The habitats at the proposed site can be categorised as species-poor wet grassland and scrub that is common in the surrounding landscape and used for rough grazing. No species of conservation concern were recorded during ecological surveys of the site undertaken in 2018 and 2021 and the site does not provide support to any habitats or species of those European Sites within the Zone of Influence.
- 9.2.3. Incidences of Japanese Knotweed (an invasive alien plant species listed in Part (1) of the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011, as amended) have been confirmed on site towards its north-eastern boundary as well as along the public road to the south. Concerns also arise

that potential stands of Montbretia (named by the Department of Agriculture, Food and the Marine as an invasive plant that can displace native vegetation) may be present within the western part of the site although further surveying during the growing season would be required to confirm the presence or absence of this species.

- 9.2.4. The site lies within the surface water catchment of the Coomhola River within the South Western River Basin District. A tributary of the Coomhola River rises approximately 50m southwest of the western site boundary and flows north-eastwards (c. 15m from the base of the waste mound) through a culvert under the access road to the development site before joining the Coomhola River approximately 2km downstream of the landfill at a location c. 300m upstream of Coomhola Bridge. A second lower order stream is located to the northeast of the site which flows south-eastwards to connect to that previously mentioned c. 70m downstream of the landfill. Both these streams receive surface water runoff from the surrounding area via existing drainage channels and flow paths with the north-eastern extent of the development site also draining towards the stream to the northeast. However, a series of drains to the northwest and south of the development site collect surface water runoff from the landfill itself in addition to runoff from the higher ground to the northwest. These drains do not directly connect to the stream to the south of the site with runoff from the perimeter drains discharging to an area of standing water approximately 30m from the stream.
- 9.2.5. The Coomhola River discharges to the sea at Bantry Bay approximately 10.5km downstream of Coomhola Bridge and an EPA water quality monitoring station at the bridge recorded a high status (Q4-Q5) at the last available date of testing (2018). The river is further classified as being of 'High' status and 'Not at risk' under the Water Framework Directive (WFD). It discharges into Inner Bantry Bay, a transitional water body that has not been assigned a status but which is classified as 'Not at risk' under the WFD, while Outer Bantry Bay is classified as being of 'High' status and 'Not at risk' under the WFD.
- 9.2.6. With regard to the bedrock geology, the northern extent of the site is underlain by a band of Toe Head Formation composed of cross-bedded sandstone & mudstone while a band of Old Head Sandstone Formation composed of flaser-bedded sandstone & minor mudstone underlies the remainder of the site area. The overlying

soils comprise shallow, rocky, peaty / non-peaty mineral complexes with a band of peat running to the south of the site as derived from the GSI soil mapping.

- 9.2.7. The site is underlain by a 'Locally Important' bedrock aquifer which is 'Moderately Productive only in Local Zones'. Groundwater vulnerability is described as Extreme / High with rock at or near the surface or karst. Hydrogeologically, the site is within the Beara Sneem Ground Waterbody which is classified as being of 'Good' status and 'Not at risk' under the WFD.
- 9.2.8. The proposed development site is not located within or immediately adjacent to any European Site with the nearest such sites being the Glengarriff Harbour and Woodland SAC c. 2.0km to the west and the Derryclogher (Knockboy) Bog SAC c. 3.8km to the north-northeast.

### 9.3. **Potential Impacts Arising:**

- 9.3.1. Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following issues are considered for examination in terms of implications for likely significant effects on European sites:
- Pollution / contamination via surface water runoff & overland flow
  - Groundwater contamination
  - Habitat loss / fragmentation
  - Habitat disturbance / species disturbance

### 9.4. **Identification of Natura 2000 Sites:**

- 9.4.1. The screening exercise conducted on behalf of the local authority identifies a total of 7 No. European Sites within a 15km Zone of Influence. Potential pathways for indirect hydrological connectivity have been identified to the Glengarriff Harbour and Woodland Special Area of Conservation and the Sheep's Head Special Area of Conservation (via overland flow to a tributary of the Coomhola River which discharges to Bantry Bay). That report proceeds to identify the possible implications of the proposed development on European sites before concluding that the proposal, either alone or in combination with other plans and / or projects, does not have the potential to significantly affect any European Site, in light of their Conservation Objectives, and thus Stage 2 Appropriate Assessment along with the preparation of an NIS is not required.

- 9.4.2. In assessing the Zone of Influence of the proposed development on Natura 2000 sites, the identification of European sites within a 15km radius of the project has become commonplace in screening for the purposes of appropriate assessment, however, this is not founded on scientific evidence and derives from a misapplication of the recommendation for 'Plans' contained in the '*Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities*' published by the Department of Environment, Heritage and Local Government. Nevertheless, for the purpose of completeness, there are 7 No. European Sites within a 15km radius of the proposed works. Any European Sites beyond this 15km radius could not reasonably be held to share a connection with the development site having regard to the source-pathway-receptor model of risk assessment.
- 9.4.3. Table 1 below includes a list of all the sites I have considered in the screening of the proposed development, all of which were also considered by Cork County Council within the Appropriate Assessment screening document submitted to the Board.
- 9.4.4. Having regard to the information and submissions available, the nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source-pathway-receptor principle, and the sensitivities of the ecological receptors, I consider that the following European Sites are relevant to include for the purposes of initial screening for the requirement for Stage 2 appropriate assessment on the basis of likely significant effects.

**Table 1: European Sites Considered for Stage 1 Screening:**

European Site	Qualifying interests	Distance from proposed development	Connections (source-pathway-receptor)	Considered further in screening
Glengarriff Harbour and Woodland SAC (Site Code: 000090)	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion	c. 2.0km west	There is potential for indirect connectivity via subsurface and / or overland flow to a tributary of the Coomhola River which discharges to Bantry Bay and an inlet that forms part of the SAC c.	Yes

	<p>incanae, <i>Salicion albae</i>) [91E0]</p> <p><i>Geomalacus maculosus</i> (Kerry Slug) [1024]</p> <p><i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat) [1303]</p> <p><i>Lutra lutra</i> (Otter) [1355]</p> <p><i>Phoca vitulina</i> (Harbour Seal) [1365]</p>		11.7km downstream.	
Derryclogher (Knockboy) Bog SAC (Site Code: 001873)	Blanket bogs (* if active bog) [7130]	c. 3.8km north-northeast	None by reference to the separation distances involved and the location of the development site downgradient of the European site.	No.
Caha Mountains SAC (Site Code: 000093)	<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</p> <p>Natural dystrophic lakes and ponds [3160]</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p>Alpine and Boreal heaths [4060]</p> <p>Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and</p>	c. 4.7km west	None by reference to the separation distances involved and topographical considerations.	No.



	<p>submountain areas, in Continental Europe) [6230]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]</p> <p>Calcareous rocky slopes with chasmophytic vegetation [8210]</p> <p>Siliceous rocky slopes with chasmophytic vegetation [8220]</p> <p><i>Geomalacus maculosus</i> (Kerry Slug) [1024]</p> <p><i>Trichomanes speciosum</i> (Killarney Fern) [1421]</p>			
Maulagowna Bog SAC (Site Code: 001881)	Blanket bogs (* if active bog) [7130]	c. 11.8km northwest	None by reference to the separation distances involved and the location of the development site downgradient of the European site.	No.
Cloonee and Inchiquin Loughs, Uragh Wood SAC (Site Code: 001342)	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	c. 12.9km northwest	None by reference to the separation distances involved.	No.

	<p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p>Siliceous rocky slopes with chasmophytic vegetation [8220]</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p><i>Geomalacus maculosus</i> (Kerry Slug) [1024]</p> <p><i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat) [1303]</p> <p><i>Trichomanes speciosum</i> (Killarney Fern) [1421]</p> <p><i>Najas flexilis</i> (Slender Naiad) [1833]</p>			
<p>Sheep's Head SAC (Site Code: 000102)</p>	<p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p><i>Geomalacus maculosus</i> (Kerry Slug) [1024]</p>	<p>c. 14.3km southwest</p>	<p>There is potential for indirect connectivity via subsurface and / or overland flow to a tributary of the Coomhola River which discharges to Bantry Bay.</p>	<p>Yes</p>
<p>Glanlough Woods SAC (Site Code: 002315)</p>	<p><i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat) [1303]</p>	<p>c. 14.7km north</p>	<p>None by reference to the separation distances involved.</p>	<p>No.</p>

9.4.5. With respect to the Derryclogher (Knockboy) Bog SAC, the Cahra Mountains SAC, the Maulagowna Bog SAC, the Cloonee and Inchiquin Loughs, Uragh Wood SAC and the Glanlough Woods SAC, having regard to the limited nature and scale of the proposed development, the separation distances involved, the location of the subject works either within a different surface water catchment or downgradient / downstream of those protected sites, and as no potential pathways for any significant impacts can be established, it can be reasonably concluded that there is no potential for those Natura 2000 sites to be impacted by the subject development.

9.4.6. In relation to the Glengarriff Harbour and Woodland SAC and the Sheep's Head SAC, given the nature and location of the proposed works, in my opinion, the possibility of an indirect hydrological connection via ground and / or surface water pathways between the development site and the European Sites cannot be discounted and, therefore, I would concur with the screening exercise undertaken on behalf of the local authority that these issues require further consideration in screening the proposal for the purposes of Appropriate Assessment.

**9.5. Potential Impacts on European Sites and Test of Likely Significant Effects:**

In assessing whether or not the proposed development could have potential adverse impacts on the qualifying interests associated with the aforementioned SACs, I have had particular regard to the information contained in the report entitled "Conservation Objectives Series" prepared by the National Parks and Wildlife Service for the SACs in question.

**9.5.1. The Glengarriff Harbour and Woodland Special Area of Conservation:**

*Conservation Objectives:*

- To maintain the favourable conservation condition of the habitats and / or species for which the SAC has been selected as defined by a list of specified attributes and targets.

9.5.2. In terms of assessing the potential direct, indirect or secondary impacts of the proposed development on the conservation objectives of the aforementioned Natura 2000 site, it should be noted that due to the location of the proposed works outside of the Natura 2000 designation, the separation distances between the project and the Natura 2000 site, and the lack of suitable habitat in the vicinity of the development site for protected species, it is not considered that there is any pathway

for the direct loss or fragmentation of habitats or species listed as qualifying interests nor is there any pathway for the disturbance of such habitats or species or any other semi-natural habitats that may act as ecological corridors for important species associated with them. Accordingly, the subject proposal will not directly impact on the integrity of the European Site in this regard.

- 9.5.3. However, having reviewed the available information, in light of the nature and scale of the proposed development, the specifics of the site location, and having regard to the prevailing site topography, in my opinion, by employing the source / pathway / receptor model of risk assessment, it can be determined that specific consideration needs to be given to the potential implications for downstream protected habitats & (aquatic) species within the aforementioned site due to the hydrological connectivity between the project site and the European site via subsurface and / or overland flow to a tributary of the Coomhola River which discharges to Bantry Bay and an inlet that forms part of the SAC c. 11.7km downstream. More specifically, the release of any deleterious material such as fine sediments or the discharge of hydrocarbons or other contaminants could potentially result in a deterioration in water quality that could have negative consequences for downstream aquatic species.
- 9.5.4. By way of background, the Certificate of Authorisation granted by the EPA in respect of the subject site states that the principle environmental risk associated with the closed landfill is the generation and migration of leachate into the shallow aquifer and local surface waters. However, the quantitative risk assessment (QRA) undertaken on behalf of the local authority based on site investigations and environmental monitoring carried out in 2010, 2011 and 2014 (including laboratory data from the sampling of leachates from boreholes on site, groundwater from boreholes off-site, drains on site and surface water features close to the site) determined that the waste material does not pose a significant risk to groundwater downgradient of the site. That assessment found the leachate to be of low strength when compared to ranges quoted for typical leachate concentrations. The main parameters of concern as regards groundwater quality were iron, manganese, ammonia and hydrocarbons, however, the QRA noted that there was no evidence of any significant groundwater contamination in the vicinity of the site. Given that the proposed works will involve the capping of the closed landfill with the effect of reducing the levels of leachate, it can be anticipated that the proposal will have an

overall positive impact on groundwater quality in the area. It is of further relevance to note that groundwater flow from the development site is in an easterly direction away from the SAC while the environmental monitoring data indicates that the landfill is not having an effect on groundwater quality downgradient of the site.

9.5.5. In relation to surface water quality, the QRA determined that the main parameters of concern were ammonia, iron and manganese. No evidence was recorded of metals or hydrocarbons presenting a risk to surface water quality downgradient of the site. The February, 2014 monitoring results indicated that there was no issue as regards the concentration of iron and manganese downgradient of the site. Moreover, while the landfill is having an impact on the ammonia concentration in the immediate vicinity of the site, these levels return to within background concentrations 400m downgradient of the site.

9.5.6. Although the environmental monitoring data indicates that the landfill is not having a significant effect on ground or surface water quality downgradient of the site, it has been accepted that leachate is seeping from along the central area of the eastern site boundary which is impacting on surface water quality in the immediate site surrounds although the levels reduce with distance and are within natural background levels at the monitoring location 400m downgradient of the site. Accordingly, the preferred remedial option is the installation of a low permeability capping system over the waste body in order to reduce leachate generation and subsequent seepage.

9.5.7. Having regard to the foregoing, the scale, nature and intended purpose of the proposed development, and in consideration of the high / extreme vulnerability classification of the groundwater at the site, there is the potential for the remediation works to have a positive effect on groundwater quality at the site and its immediate environs.

9.5.8. While the Glengarriff Harbour and Woodland Special Area of Conservation is c. 2.0km west of the development site, it is not downgradient of the works area. Moreover, while the Glengarriff Harbour and Woodland SAC lies within the Glengarriff WFD subcatchment, the proposed development site is located within the surface water catchment of the Coomhola River within the South Western River Basin District in an area that drains east-northeast towards the Coomhola River. In

this regard, the proposed surface water drainage arrangements (which will incorporate new swales and filter drains) will direct runoff from the closed landfill to a tributary of the Coomhola River which flows north-eastwards c. 15m from the base of the waste mound. This unnamed stream confluences with the Coomhola River approximately 2km downstream of the landfill which in turn discharges to the sea at Bantry Bay approximately 10.5km downstream of Coomhola Bridge.

9.5.9. During the construction works, there is a possibility for the discharge / runoff of contaminated surface waters (sediment, silt, oils and / or other pollutants) to enter the nearby stream (which ultimately discharges to Banty Bay via the Coomhola River), however, the potential for surface water generated at the development site to reach that part of the Glengarriff Harbour and Woodland SAC which extends into Bantry Bay and to cause significant effects can be excluded due to:

- The small scale and nature of the proposed works;
- The presence of an existing natural vegetation buffer of c. 5m - 15m in width between the footprint of the proposed works and the tributary of the Coomhola River;
- The c. 11.7km downstream distance between the proposed works area and an inlet within Bantry Bay that forms part of the SAC; and
- The dilution levels provided in the transitional and coastal waters of Bantry Bay.

9.5.10. It has also been submitted that while any inadvertent spillages of hydrocarbons during the remediation works could theoretically enter the aquatic environment via surface water runoff or groundwater contamination and have a direct toxicological impact on habitats and fauna, given the small scale of the development and the low risk of any such pollutants reaching sensitive aquatic receptors, no impacts on water quality due to such minor spills are expected.

9.5.11. Therefore, I would concur with the screening assessment undertaken on behalf on the local authority that the potential for the proposed remediation works to result in an adverse impact on water quality within the SAC, in the absence of any control measures, is negligible. By extension, no significant adverse effects on the SAC are expected to arise from the proposed remediation works.

#### 9.5.12. **The Sheep's Head Special Area of Conservation:**

*Conservation Objectives:*

- To maintain the favourable conservation condition of the habitats and / or species for which the SAC has been selected as defined by a list of specified attributes and targets.

9.5.13. Similar to the foregoing analysis, and noting that the Sheep's Head SAC is at a greater distance (c. 18.9km) downstream of the development site while its qualifying interests are all of a terrestrial nature, due to the location of the proposed works outside of the Natura 2000 designation, the separation distance between the project and the Natura 2000 site, and the lack of suitable habitat in the vicinity of the development site for protected species, it is not considered that there is any pathway for the direct loss or fragmentation of habitats or species listed as qualifying interests nor is there any pathway for the disturbance of such habitats or species or any other semi-natural habitats that may act as ecological corridors for important species associated with them.

9.5.14. Furthermore, the potential for contaminated surface waters (sediment, silt, oils and / or other pollutants) from the proposed development to reach that part of the Sheep's Head SAC which extends into or adjoins Bantry Bay and to cause significant effects can be excluded due to:

- The small scale and nature of the proposed works;
- The presence of an existing natural vegetation buffer of c. 5m - 15m in width between the footprint of the proposed works and the tributary of the Coomhola River;
- The c. 18.9km downstream distance between the proposed works area and the SAC;
- The dilution levels provided in the transitional and coastal waters of Bantry Bay; and
- The Qualifying Interests of the Sheep's Head SAC are of a terrestrial nature.

9.5.15. Therefore, I would concur with the screening assessment undertaken on behalf on the local authority that the potential for the proposed remediation works to result in an adverse impact on water quality within the SAC, in the absence of any control

measures, is negligible. By extension, no significant adverse effects on the SAC are expected to arise from the proposed remediation works.

#### 9.5.16. **Potential for In-Combination Effects:**

The potential for cumulative and in-combination effects with other plans and projects is considered in Section 4.2 of the 'Kealanine Closed Landfill Remediation: Screening for Appropriate Assessment (AA)' prepared by RPS on behalf of Cork County Council. In this regard, having considered the planning history of the surrounding area and the potential plans identified in the screening exercise, I am satisfied that the proposed development would not be likely to give rise to any in-combination / cumulative impacts with other plans or projects which would adversely affect the integrity of any Natura 2000 site and would not undermine or conflict with the Conservation Objectives applicable to same.

#### 9.5.17. **Mitigation Measures:**

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.

#### 9.5.18. **Conclusion on AA Screening:**

Having regard to the foregoing, it is reasonable to conclude on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, either individually or in combination with other plans or projects would not be likely to have a significant effect on the Glengarriff Harbour and Woodland Special Area of Conservation or the Sheep's Head Special Area of Conservation, or any other European Site, in view of the conservation objectives of those sites, and that a Stage 2 Appropriate Assessment and the submission of a Natura Impact Statement for the proposed development is not, therefore, required.

## 10.0 **Recommendation**

10.1. Having regard to my assessment above, I consider that the proposed remediation works to a closed landfill at Kealanine, Coomhola, Bantry, Co. Cork, would not be likely to have significant effects on the environment or the integrity of the Glengarriff Harbour and Woodland Special Area of Conservation or the Sheep's Head Special



Area of Conservation and, therefore, it is recommended that the Board does not direct the local authority to prepare a Natura Impact Assessment in respect of the proposed development based on the reasons and considerations set out below.

## 11.0 Reasons and Considerations

Having regard to:

- a) the nature and limited scale of the proposed development;
- b) the physical, topographical and hydrological separation distances between the proposed development and European sites;
- c) the surface water management arrangements which form part of the overall project;
- d) the submission made on behalf of the local authority, including the Screening for Appropriate Assessment received on 23<sup>rd</sup> March, 2023; and
- e) the report and recommendation of the person appointed by the Board to make a report and recommendation on the matter,

It is considered reasonable to conclude that on the basis of the information available, which is considered adequate to issue a screening determination, that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on the Glengarriff Harbour and Woodland Special Area of Conservation (Site Code: 000090) or the Sheep's Head Special Area of Conservation (Site Code: 000102), or any other European sites, in view of the conservation objectives of those sites, and that a Stage 2 Appropriate Assessment and the submission of a Natura Impact Statement for the proposed development is not, therefore, required.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

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Robert Speer  
Planning Inspector

17<sup>th</sup> August, 2023