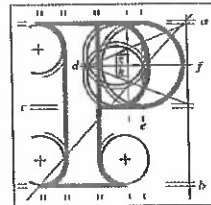


Our Case Number: ABP-314964-22



An  
Bord  
Pleanála

Trish Smullen  
Geological Survey Ireland  
Dept. of the Environment, Climate and Communications  
Block 1 Booterstown Hall  
Booterstown  
Blackrock  
Co. Dublin  
A94 N2R6

Date: 01 September 2023

Re: Proposed development of a Circular Economy Campus and an Integrated Waste Management Facility at the Hollywood Landfill  
Hollywood Great, Nag's Head, Naul, Co. Dublin, A41 YE92

Dear Madam,

An Bord Pleanála has received your submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter.

The Board will revert to you in due course in respect of this matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: [www.pleanala.ie](http://www.pleanala.ie).

If you have any queries in the meantime please contact the undersigned officer of the Board. Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

  
Sarah Caulfield  
Executive Officer  
Direct Line: 01-8737287

PA09

|                    |         |                                                        |
|--------------------|---------|--------------------------------------------------------|
| Teil               | Teil    | (01) 858 8100                                          |
| Glaao Áitiúil      | LoCall  | 1800 275 175                                           |
| Facs               | Fax     | (01) 872 2684                                          |
| Láithreán Gréasáin | Website | <a href="http://www.pleanala.ie">www.pleanala.ie</a>   |
| Ríomhphost         | Email   | <a href="mailto:bord@pleanala.ie">bord@pleanala.ie</a> |

|                      |                       |
|----------------------|-----------------------|
| 64 Sráid Maoilbhríde | 64 Mariborough Street |
| Baile Átha Cliath 1  | Dublin 1              |
| D01 V902             | D01 V902              |

Dear Trish,

The Board acknowledges receipt of your email and attached submission in relation to ABP-314964-22.

Kind Regards,  
Sarah

**From:** GSI Planning <[GSIPlanning@GSI.ie](mailto:GSIPlanning@GSI.ie)>  
**Sent:** Thursday, August 31, 2023 12:00 PM  
**To:** Bord <[bord@pleanala.ie](mailto:bord@pleanala.ie)>  
**Cc:** GSI Planning <[GSIPlanning@GSI.ie](mailto:GSIPlanning@GSI.ie)>; Planning Advisory <[PlanningAdvisory@decc.gov.ie](mailto:PlanningAdvisory@decc.gov.ie)>  
**Subject:** RE: EIS 23/227 - Proposed Campus and IWMF, Naul, Co Dublin

**Re: Proposed Development of a Circular Economy Campus and Integrated Waste Management at Hollywood Landfill, Hollywood Great, Nag's Head, Naul, Co. Dublin, A41 YE92**  
**Bord Pleanála Case reference: PA06F.314964**  
**Our Ref: 23/277 [c.f. 22/347]**

Dear Sir/Madam,  
With reference to your letter received on the 21 August 2023, concerning the proposed development of a Circular Economy Campus and Integrated Waste Management at Hollywood Landfill, Naul, Co. Dublin, please find attached responses from Geological Survey Ireland.  
Yours sincerely,  
Trish Smullen  
Geological Survey Ireland

**From:** GSI Planning <[GSIPlanning@GSI.ie](mailto:GSIPlanning@GSI.ie)>  
**Sent:** Monday, August 21, 2023 5:46 PM  
**To:** Trish Smullen <[Trish.Smullen@gsi.ie](mailto:Trish.Smullen@gsi.ie)>  
**Cc:** GSI Planning <[GSIPlanning@GSI.ie](mailto:GSIPlanning@GSI.ie)>  
**Subject:** EIS 23/227 - Proposed Campus and IWMF, Naul, Co Dublin

EIS 23/227

Proposed Circular Economy Campus and Integrated Waste Management Facility, Hollywood Great, Nag's Head, Naul, Co Dublin. Request for observations by An Bord Pleanála by 6 September 2023. Letter is enclosed.

Regards,

John

Disclaimer:

This electronic message contains information (and may contain files), which may be privileged or confidential. The information is intended to be for the sole use of the individual(s) or entity named above. If you are not the intended recipient be aware that any disclosure, copying, distribution or



An Bord Pleanála  
64 Marlborough Street  
Dublin 1,  
D01 V902

31 August 2023

**Re: Proposed Development of a Circular Economy Campus and Integrated Waste Management at Hollywood Landfill, Hollywood Great, Nag's Head, Naul, Co. Dublin, A41 YE92**

**Bord Pleanála Case reference: PA06F.314964**

**Our Ref: 23/277 [c.f. 22/347]**

Dear Sir/Madam,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and gather various data for that purpose. Please see our [website](#) for data availability. We recommend using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

The publicly available data referenced/presented here, should in no way be construed as Geological Survey Ireland support for or objection to the proposed development or plan. The data is made freely available to all and can be used as independent scientific data in assessments, plans or policies. It should be noted that in many cases this data is a baseline or starting point for further site-specific assessments.

**With reference to your letter received on the 21 August 2023, concerning the proposed development of a Circular Economy Campus and Integrated Waste Management at Hollywood Landfill, Naul, Co. Dublin, Geological Survey Ireland has no further comments or observations to make since our correspondence to RPS Group in September 2022, response reference: 22/347 attached.**

I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to the Geological Survey Ireland Planning Team at [GSIPlanning@gsi.ie](mailto:GSIPlanning@gsi.ie).

Yours sincerely,

**Geoheritage and Planning Programme**



RPS | Consulting UK & Ireland  
West Pier Business Campus  
Dun Laoghaire  
Co. Dublin  
A96 N6T7

01 September 2022

**Re: EIA and AA Consultation for development of a Circular Economy Campus and an Integrated Waste Management Facility at Hollywood Great, Nag's Head, Naul, Co. Dublin**

**Your Ref: MDR1492Alt0001**

**Our Ref: 22/347**

Dear Sir/Madam,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and advice and gather various data for that purpose. Please see our [website](#) for data availability. We recommend using these various data sets, when conducting the EIA, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

With reference to your email received on the 12 August 2022, concerning the EIA and AA Consultation for development of a Circular Economy Campus and an Integrated Waste Management Facility at Hollywood Great, Nag's Head, Naul, Co. Dublin, Geological Survey Ireland would encourage use of and reference to our datasets. Please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment. The remainder of this letter and following sections provide more detail on some of these datasets.

#### Geoheritage

Geological Survey Ireland is in partnership with the National Parks and Wildlife Service (NPWS, Department of Housing, Local Government and Heritage), to identify and select important geological and geomorphological sites throughout the country for designation as geological NHAs (Natural Heritage Areas). This is addressed by the Geoheritage Programme of Geological Survey Ireland, under 16 different geological themes, in which the minimum number of scientifically significant sites that best represent the theme are rigorously selected by a panel of theme experts.

County Geological Sites (CGSs), as adopted under the National Heritage Plan, include additional sites that may also be of national importance, but which were not selected as the very best examples for NHA designation. All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS. CGSs are now routinely included in County Development Plans and in the GIS of planning departments, to ensure the recognition and appropriate protection of geological heritage within the planning system. CGSs can be viewed online under the Geological Heritage tab on the online [Map Viewer](#).

The County Geological Heritage Audit for Fingal was completed out in 2007. The full report details can be found [here](#). **Our records show that there is a CGS within the proposed material waste recovery facility.**

**Nags Head Quarry**, Fingal (GR 315681, 258044), under IGH theme: IGH 8 Lower Carboniferous. This large working quarry 5km south of Naul exposes Lower Carboniferous rocks of the Loughshinny Formation - a mixture of thin to medium bedded limestone and shale. The structural deformation seen here, for example as chevron folds, reflects the geology also visible 12km away on the coast at Loughshinny. Link to Site Report: [DFQ16](#).

In December 2019, Geological Survey Ireland carried out fieldwork within Nag's Head Quarry to record and document the geology prior to infilling and we are grateful to Integrated Materials Solutions (IMS) for allowing us to do this.



With the current plan, there are no further envisaged impacts on the integrity of current CGSs by the proposed development. However, if the proposed development plan is altered, please contact Clare Glanville ([Clare.Glanville@gsi.ie](mailto:Clare.Glanville@gsi.ie)) for further information and possible mitigation measures if applicable.

Should any further significant bedrock cuttings be created and/or exposed, Geological Survey Ireland would request that the operator might assist our geological heritage goals with the following (and ideally this would be written into the restoration / closure plan) and be included as a condition of planning as deemed appropriate by the planning authority:

1. Allowing access to quarry faces by appropriate scientists (upon request and with due regards to Health and Safety requirements) during quarrying to check for interesting new stratigraphies / relationships as they might become exposed and to establish if the quarry site is worthy of recognition post extraction and through aftercare/restoration planning.
2. If deemed appropriate in (1) above, leaving a representative section of the quarry face at the end of the quarry life or inclusion of information panels to promote the geology to the public or develop tourism or educational resources if appropriate depending on the future use of the site. Natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface.

#### Groundwater

Geological Survey Ireland's [Groundwater and Geothermal Unit](#), provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems.

Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. We recommend using the groundwater maps on our [Map viewer](#) which should include: wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps. For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels ([gwlevel.ie](http://gwlevel.ie))). Background information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data.

The Groundwater Data Viewer indicates an aquifer classed as a 'Locally Important Aquifer - Bedrock which is Generally Moderately Productive' underlies the proposed development.

The Groundwater Vulnerability map indicates the range of groundwater vulnerabilities within the area covered is variable. We would therefore recommend use of the Groundwater Viewer to identify areas of High to Extreme Vulnerability and 'Rock at or near surface' in your assessments, as any groundwater-surface water interactions that might occur would be greatest in these areas.

[GWClimate](#) is a groundwater monitoring and modelling project that aims to investigate the impact of climate change on groundwater in Ireland. This is a follow on from a previous project (GWFlood) and the data may be useful in relation to Flood Risk Assessment (FRA) and management plans. Maps and data are available on the [Map viewer](#).

Geological Survey Ireland has completed Groundwater Protection Schemes (GWPSs) in partnership with Local Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. **The Groundwater Protection Response overview and link to the main reports is here:** <https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/projects/protecting-drinking-water/what-is-drinking-water-protection/county-groundwater-protection-schemes/Pages/default.aspx>





### **Geological Mapping**

Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found [here](#), in your future assessments. Our 3D models can help stakeholders visualize, understand and characterise geology, for deposit and resource mapping, for flooding and for urban geology applications including basement impact assessment, Sustainable Drainage Systems (SuDS), and subsurface management. Our 3D models offer a key element of geotechnical risk management by identifying areas requiring further site investigation.

Please note we have recently launched QGIS compatible bedrock (100K) and Quaternary geology map data, with instructional manuals and videos. This makes our data more accessible to general public and external stakeholders. QGIS compatible data can be found in our downloadable bedrock 100k .zip file on the [Data & Maps](#) section of our website.

Further information on the bedrock and Quaternary 3D models of Dublin is available [here](#) and [here](#).

### **Geochemistry of soils, surface waters and sediments**

Geological Survey Ireland provides baseline geochemistry data for Ireland as part of the Tellus programme. Baseline geochemistry data can be used to assess the chemical status of soil and water at a regional scale and to support the assessment of existing or potential impacts of human activity on environmental chemical quality. Tellus is a national-scale mapping programme which provides multi-element data for shallow soil, stream sediment and stream water in Ireland. At present, mapping consists of the border, western and midland regions. Data is available at <https://www.gsi.ie/en-ie/data-and-maps/Pages/Geochemistry.aspx>. This page also hosts urban geochemistry mapping (Dublin SURGE project), Geochemical Mapping of Agricultural and Grazing Land Soil of Europe (GEMAS) and lithogeochemistry (rock geochemistry) from southeast Ireland datasets. Geological Survey Ireland and partners are undertaking applied geochemistry projects to provide data for agriculture ([Terra Soil](#)), waste soil characterisation ([Geochemically Appropriate Levels for Soil Recovery Facilities](#)) and mineral exploration ([Mineral Prospectivity Mapping](#)).

### **Guidelines**

The following guidelines may also be of assistance:

- Institute of Geologists of Ireland, 2013. Guidelines for the Preparation of the Soils, Geology and Hydrogeology Chapters of Geology in Environmental Impact Statements.
- [EPA, 2022](#). Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)
- Department of Environment, Heritage and Local Government, 2004. Quarries and Ancillary Activities, Guidelines for Planning Authorities.
- Environmental Protection Agency, 2006. Environmental Management in the Extractive Industry: Non-Scheduled Minerals.
- Geological Survey of Ireland - Irish Concrete Federation, 2008. Geological Heritage Guidelines for the Extractive Industry.

### **Other Comments**

Should development go ahead, all other factors considered, Geological Survey Ireland would much appreciate a copy of reports detailing any site investigations carried out. The data would be added to Geological Survey Ireland's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to the Geological Mapping Unit, at <mailto:GeologicalMappingInfo@gsi.ie>, 01-678 2795.



I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to contact me Clare Glanville, or my colleague Trish Smullen at [GSIPlanning@gsi.ie](mailto:GSIPlanning@gsi.ie).

Yours sincerely,

Clare Glanville  
Senior Geologist  
Geological Survey Ireland

Enc: Table - Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes.