Volume 3: Appendices

Howth FHC Harbour Dredging and Reclamation Project (Howth, Co. Dublin) Environmental Impact Assessment Report (EIAR)

Project No. 19934
July 2021

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Appendix 1.1
Letter example to consultees

Malachy Walsh and Partners
Engineering and Environmental Consultants

CORK TRALEE LIMERICK LONDON

The Elm Suite, Loughmore Centre, Raheen Business Park, Limerick, Ireland, V94 R578
Tel: +353 (0)61 480164 • Email: limerick@mwp.ie • www.mwp.ie

An Taisce
The National Trust for Ireland
Tailors' Hall
Back Lane
Dublin
D08 X2A3

5th February 2020

Re: Consultation on Proposed Dredging and Land Reclamation Project at Howth Harbour, Co. Dublin .

Dear Sir/Madam,

Malachy Walsh and Partners (MWP) have been commissioned by the Department of Agriculture, Food and the Marine to undertake an Environmental Impact Assessment (EIA) and prepare a subsequent Environmental Impact Assessment Report (EIAR) relating to plans for a proposed dredging and land reclamation project in Howth Harbour, Co. Dublin. Details of the proposed project are enclosed.

I am consulting with you on this proposal as it may be of interest or concern to you (or your organisation). While there will be the opportunity to make comments and/or a submission on the proposed development as part of the planning process, if there is any key issue which you consider should be addressed in the EIA/EIAR we would welcome your input at this stage.

Should you require additional information or wish to further discuss the proposal, please contact me by email at graeme.thornton@mwp.ie or by post to Malachy Walsh and Partners, The Elm Suite, Loughmore Centre, Raheen Business Park, Limerick. Please respond within 5 weeks.

Yours sincerely,

Graeme Thornton
Senior Environmental Scientist
For and on behalf of Malachy Walsh and Partners

1 Project Description

Howth Fishery Harbour Centre (FHC) was last dredged in the 1980s, and due to build-up of siltation, it is necessary to dredge the existing basins & approach channels in Howth Harbour in order to provide safe access, navigation and berthing to the vessels currently using the harbour, and to provide for appropriate maintenance of same into the future through a programme of measurement and maintenance dredging.

For the bulk dredge it is proposed to dredge circa 240,000m^3, treat and re-use the material to the West of the West pier in order to create and additional circa 50,000 square metres of land area. It is envisaged that, like the rest of the FHC, this infill area will incorporate a mixture of fishing and industrial elements, light industrial / commercial and public realm spaces.

The aim of the overall project is to increase the depth of water in order to provide safe access and harbour, to the largest range of vessel size and type on the widest range of tides, within the structural parameters of the existing harbour quay structures and where possible to treat and re-use or dispose of dredge material in an environmentally sensitive and cost effective manner.

1.1 Size, scale, area, land-take

Dredging Works

It's proposed to dredge an area of approximately 14 Ha (140,000m2) of bed within Howth Harbour. This amounts to a volume of 240,000m3 of material. The majority of this material is silty in nature and is potentially contaminated in places. It is proposed to treat the material and to re-use it in a reclamation area to the west of the West Pier.

Land Reclamation

It's proposed to re-use the dredge material to reclaim an area of approximately 5 Ha on the West side of the West Pier. The perimeter of the reclaimed land will be protected from wave action by means of a rock armour revetment.

The reclaimed land will include a mixture of uses including fishing, light industrial, commercial and public realm spaces.

The attached drawing no. 19934 SK02 outlines the location and extent of the proposed reclaimed land and land use areas.

Natura 2000 Land-take

There will be no spatial overlap between the proposed works and any Natura 2000 site; therefore, there will be no land-take within any Natura 2000 site.

1.2 Details of physical changes that will take place during the various stages of implementing the proposal

The proposed works can be divided into 4 phases as follows:

- Phase 1: Construction of a perimeter bund and rock armour revetment to reclaimed land area;
- Phase 2: Dredging of Howth Harbour;

- Phase 3: Reclamation of land up to ground level;
- Phase 4: Finishings

Phase 1: Construction of the perimeter bund and rock armour revetment to reclaimed land area.
Works to the perimeter bund can be carried out from either or both ends. Works will commence with clearing soft silt material from the existing sea bed prior to construction of the bund using a dredger or a barge mounted long reach excavator. The clearing will begin at the intersection locations of the perimeter bund with the existing West Pier. The core of the bund will be constructed of imported granular stone fill (Class 6A). The stone fill will be placed in 500mm layers with the long reach excavator bucket until it is safe to track the excavator at low tides. The revetment geotextile filter layer will be placed on the outer face of the bund. The revetment under-layer rocks (smaller in size compared to the outer primary layer) will be placed with the long reach excavator to provide a well graded and interlocked batter to receive the larger primary layer of rocks. Primary rock armour will be placed first below water level to provide a stable tow to build the primary armour layer off of. Dump trucks will deliver material to the excavator at the end of the bund/causeway.

This process will continue out along the line of the perimeter bund until a closed perimeter is constructed. There may be temporary cross bunds constructed to provide smaller phased infill areas.

When the external face of the bund is completed the internal face will be lined with an impermeable clay liner to act as a barrier to movement of water in and out of the reclaimed land.

Phase 2: Dredging of Howth Harbour.
The dredging works will be undertaken using a long reach excavator operating from a floating pontoon barge or an equivalent configuration. All excavators carrying out the dredging works will be fitted with environmental dredging buckets in order to minimise the loss of dredge spoil into the harbour during dredging. In addition, silt curtains will be established around the dredging operations in order to further minimise the loss of dredge spoil from the Site.

Dredge spoil will be transferred into floating dump barges tied to the floating pontoon. Once fully loaded, the barges will be towed to an unloading quay side point within the harbour. The unloading point will be located adjacent to the stabilisation and solidification process facility.

Multi-beam bathymetric surveys will be used to ensure the correct dredge depths are achieved and to identify high-spots for further dredging.

Waste debris collected during dredging works will be segregated and disposed of offsite to a licensed facility.

The locations of dredging, quantities, times etc will be recorded.

Phase 3: Reclamation of land up to ground level.
The land reclamation phase begins with the stabilisation and solidification of dredge spoil prior to placement into the reclaimed land area.

Dredge material will be brought to the unloading point adjacent to the stabilisation and solidification process facility. Dredge material will be agitated within the dump barge to provide a mix suitable for pumping. If required, water will be added to achieve this.

A pump will be used to pump the material into the treatment plant. Coarser materials (greater than say 20mm) will be filtered from the pumped material and transferred separately.

A binder will be added to the dredge spoil within the treatment plant until a homogenous mix is attained. The binder will consist of a combination of Portland Cement and GGBS or similar. The processed material will then be pumped as a wet mix from the treatment plant to the bunded reclaimed land area where it will be deposited as backfill. Excess water will be collected and returned to the treatment area for reuse to fluidise the dredge spoil as necessary.

The quantities of dredge spoil, binders, processed material and when processed and where deposited will be recorded.

Phase 4: Finishings
When the reclaimed area is filled to the required formation level (approximately 3.5 to 4.5mODM over the majority of the reclamation area) works can commence to the surface finishings. These works will include landscaping, pathways, roads, parking, drainage, water supply, electricity supply, storage areas, viewing areas, water access points.

Landscaping works will involve importing and deposition of topsoil with grass seeding, flower beds and plants in line with landscaping plans.

Pedestrian pathways will be constructed on stone fill and paved with a bituminous flexible pavement. The pathways will be suitably edged. The pavement will be suitably lined as required. Along the seawards edge of the path adjacent to the top of the revetment there will be a low (1.1m) revetment crest wall.

Roadways will be constructed on stone fill and paved with a heavier duty bituminous flexible pavement. The roadways will be suitably lined as required.

Surface water drainage will be constructed. Surface water will be discharged to the sea via a hydrocarbon interceptor/silt trap.

Water will be supplied to the reclaimed land. Watermains will be constructed in trenches under roadways and pathways.

Viewing areas will be constructed onto two roundheads at the entrance to the sheltered watersports access and storage area.

A slipway will be constructed at the watersports access area. The slipway will be constructed in concrete. It will be constructed into the rock revetment.

Further finishings will include fencing, lighting and CCTV.

Monitoring of water quality (suspended sediments and turbidity) will be carried out at the dredge site. Limits will be set based on background levels. Contingency plans will be in place for when the limits are exceeding by dredging activities.

1.3 Description of timescale for the various activities that will take place as a result of implementation (including likely start and finish date)

- Phase 1: - 6 months
- Phase 2: - 12 - 15 months
- Phase 3: - 12 - 15 months

- Phase 4: - 6 months

The start date will depend on when statutory permits and funding are in place.

The proposed start date is Summer 2021.

1.4 Description of resource requirements for the construction/operation and decommissioning of the proposal (water resources, construction material, human presence etc)

Human Resources

- Contractors personnel
- DAFM personnel
- Site visitors

Welfare Facilities

- Offices
- Stores
- Canteen
- Toilets
- Dry room
- Washroom

Construction Resources

- Long reach excavators x 3
- Floating pontoon barge
- Floating dump barges x 2
- Work boat
- Safety boat
- Landing craft
- 35 ton excavators x 3
- Dump trucks x 2
- Delivery trucks
- Soil treatment plant x 1
- Binder storage silos x 2
- Pumps and pump lines.

1.5 Description of wastes arising and other residues (including quantities) and their disposal

- Dredging works will create dredge spoil as a waste material. It is proposed to dispose of the dredge spoil into the proposed land reclamation area.
- Any material which is not suitable for re-use as back fill will be disposed offsite.
- All debris recovered during dredging will be removed off site and disposed of appropriately.
- All other construction waste will be removed off site and disposed of appropriately.
- A waste licence/IEL will be obtained for the treatment process.

PROPOSED SCHEME
Scale 1:2000

KEY

- Extents
- Baldoyle Bay SAC (000199)
- Existing buildings retained
- "White Space" for Infrastructure
- Existing Land: Harbour Operation and marine-related uses retained.
- Existing Harbour Structure
- Pedestrian Walkways (Proposed)
- Natural amenity area (Permanent)
- Managed amenity area (Possible future change of use)
- Existing beach/shingle
- Rock armour
- Roadway
- Watersports Area
- P — Parking
- HBO — Areas for Harbour Business and Operations

Land Use Percentages of Reclaimed Land

"White Space" for Infrastructure	20%
Natural amenity area	42%
Managed amenity area	20%

Notes

1. All drawings are to be read in conjunction with all relevant Specifications, Bills of Quantities, Architectural Services and Engineering drawings
2. Any discrepancies between these documents shall be brought to the attention of the Engineer
3. All dimensions are in millimetres unless noted otherwise
4. All levels are in metres related Ordnance Datum Malin Head

Rev	Date	Description	by	CHK'D	appd
C	03.02.2020	Issued For Pre-Planning	EL	MD	EL
B	21.01.2020	Issued For Client Comments	EL	MD	EL
A	16.01.2020	Issued For Client Comments	EL	MD	EL

Project: Howth Dredging and West Pier Reclamation
St. Michael's Pier

Title: Proposed Scheme (DRAFT)

Client: DAFM

Malachy Walsh and Partners
Engineering and Environmental Consultants
Cork | Tralee | London | Limerick
Penn House, Mahon Technology Park, Bessboro Road, Blackrock, Cork
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E-mail: drawings@mwp.ie

Scales (A3)	NTS	
Drawn	EL	Jan 2020
Chk'd'D ( )		
Chk'd'Eng ( )	EL	Jan 2020
Approved	PP	Jan 2020

Dwg. No: 19934 -SK02
Rev: C

Legend

Site Boundary

N

Malachy Walsh and Partners

Engineering and Environmental Consultants

Appendix 1.2

List of consultees and replies

EIAR Consultation Stage - 5th February 2020 - 12th March 2021				
An Taisce	Head office	MWP	Feb-20	letter
Department of Communications, Climate Action and Environment	Head office	MWP	Feb-20	letter
Department of Housing, Planning and Local Government	Head office	MWP	Feb-20	letter
ESB Head Office	Head office	MWP	Feb-20	letter
Failte Ireland	Head office	MWP	Feb-20	letter
Fingal County Council	Hans Visser	MWP	Feb-20	letter
Health Service Executive	Head office	MWP	Feb-20	letter
Inland Fisheries Ireland	Head office	MWP	Feb-20	letter
Minister for Culture, Heritage and the Gaeltacht	The Manager, Development Applications Unit	MWP	Feb-20	letter
SEAI	Head office	MWP	Feb-20	letter
The Heritage Council	Head office	MWP	Feb-20	letter
The Office of Public Works	Head office	MWP	Feb-20	letter
Transport Infrastructure Ireland	Head office	MWP	Feb-20	letter

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Environmental Health
Unit 4 & 5, Nexus Building,
Block 6A, Blanchardstown Corporate Park,
Dublin 15

Tel +353 (0)1 8976140
Fax: +353 (0)1 8098359

Date: 12th March 2020

To: Mr Graeme Thornton
Malachy Walsh and Partners,
The Elm Suite
Loughmore Centre
Raheen Business Park
Limerick

Re: Scoping Report

Proposed Development: Proposed Dredging and Land Reclamation at Howth Harbour Co. Dublin

Applicant: Department of Agriculture, Food and the Marine

EHIS Reference: 1112

Dear Mr. Thornton,

Please find enclosed the HSE Consultation Report in relation to the above proposal.

The following HSE departments were made aware of the consultation request for the proposed development on 13 February 2020:

- Emergency Planning – Brendan Lawlor
- Estates – Helen Maher
- Assistant National Director for Health Protection – Kevin Kelleher/Laura Murphy
- CHO – Mellany McLoone

If you have any queries regarding this report the initial point of contact is myself and I will refer your query to the appropriate person.

Yours sincerely

Geraldine O'Callaghan
Principal Environmental Health Officer

HSE EIA Scoping Report

Environmental Health Service Submission Report

Date: 12th March 2020

Our reference: EHIS 1112

Report to: Mr Graeme Thornton, Senior Environmental Scientist, Malachy Walsh and Partners, The Elm Suite, Loughmore Centre, Raheen Business Park, Limerick

Type of Consultation: EIA Scoping

Applicant: Department of Agriculture, Food and the Marine

Proposed development: Proposed dredging and land reclamation project in Howth Harbour Co. Dublin

General

The following documents should be considered when preparing the Environmental Impact Assessment Report:

- Guidelines on the information to be contained in EIS (2002), 187kb
- Advice Notes on Current Practice in the preparation of EIS (2003), 435kb
- Guidelines for Planning Authorities and An Bord Pleanala on carrying out Environmental Impact Assessment

https://www.housing.gov.ie/sites/default/files/publications/files/guidelines_for_planning_authorities_and_an_bord_pleanala_on_carrying_out_eia_-_august_2018.pdf

EU publication: Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report, EU, 2017

http://ec.europa.eu/environment/eia/pdf/EIA_guidance_EIA_report_final.pdf

Adoption of the Directive (2014/52/EU) in April 2014 initiated a review of the above guidelines. The draft new guidelines can be seen at:

http://www.epa.ie/pubs/consultation/reviewofdrafteisguidelinesadvicenotes/

Generally the Environmental Impact Assessment should examine all likely significant impacts and provide the following information for each:

a) Description of the receiving environment;

b) The nature and scale of the impact;

c) An assessment of the significance of the impact;

d) Proposed mitigation measures;

e) Residual impacts.

Directive 2014/52/EU has an increased requirement to assess likely significant impacts on Population and Human Health. In the experience of the Environmental Health Service (EHS) impacts on human health are generally inadequately assessed in EIA in Ireland. It is recommended that the wider determinants of health and wellbeing are considered in a proportionate manner when considering the EIA. Guidance on wider determinants of health can be found at www.publichealth.ie

It should be noted that the positive likely significant impacts should be identified and assessed, not just any likely negative significant impacts from the proposed development.

The HSE will consider the final EIAR accompanying the planning application and will in particular make comments to the Planning Authority on the methodology used for assessing the likely significant impacts and the evaluation criteria used in assessing the significance of the impact.

Assessment of Likely Significant Impacts

The EIAR should identify the nearest sensitive receptors and consider the impact of the proposed development on them. Sensitive receptors include, but are not limited to

- Occupied dwellings
- Schools and colleges
- Childcare facilities

- Medical facilities and nursing homes
- Golf courses, sports and community facilities and
- Food premises, including retail and manufacturing

The Environmental Health Service (EHS) considers the following should be assessed in the Environmental Impact Assessment (EIA)

- Any potentially significant emissions to surface water
- Any potential significant emissions to ground water
- Any potentially significant emissions to air, including noise, vibration and dust
- Management, segregation and disposal of any potentially contaminated dredge material.
- Management of waste

Potentially significant impacts arising from both the construction and operational phase of the proposed development should be assessed.

Other areas for consideration in the EIA include:

- Staff welfare facilities
- Public consultation
- Potential for future health gain from the provision of walkways and cycle paths on the proposed reclaimed land
- Construction Environmental Management Plan (CEMP) which should include
- Training of all staff
- provision for a designated member of the construction team who will deal with queries and complaints from members of the public
- a pest control plan to deal with any potential rodent infestation arising from ground works and disturbance to drains and water courses

When assessing the potential impacts the existing environment, the assessment methodology and evaluation criteria should be clearly reported in the EIAR. Existing baseline assessments (noise, dust, ground and surface water quality) should be included.

Any mitigation proposed should be identified and the predicted residual impact clearly stated. Assessments should be undertaken for both the construction phase and the operational phase of the proposed development.

Emissions to surface water

Should any proposed activities result in potential discharges to surface water, these activities must comply with the provisions of the Local Government (Water Pollution) Acts 1977 and 1990 and the Water Services Acts 2007-2013. If a discharge licence is required, it is recommended that the developer undertake a surface water quality baseline study to assess the existing water quality and its assimilative capacity.

A suitable drainage system should be provided which minimises surface water run-off from the road and pathways proposed for the reclamation area onto adjacent land. The EHS recommends that reference is made by the developer to the TII's 'Drainage Systems for National Roads' (March 2015) guidance document.

Details of any fuels and chemicals which may be used and stored on site during construction works and the method proposed for the bunding of fuel and chemical storage tanks should be provided in the EIA. Provision should be made for the inspection and monitoring of bunding structures.

In order to minimise the wastage of water, surface water should be used for activities such as wheel washing and dust suppression.

Emissions to Groundwater

It is recommended that detailed information is gathered on the location of private wells, **if any**, serving properties within a 150m of the scheme boundary. The EIA should include proposals for the sampling of any private wells identified prior to works commencing, at least twice during the course of construction works and once in the twelve months following completion of the dredging and land reclamation scheme works.

These wells should be assessed against the parameters specified in the Drinking Water Regulations (S.I No. 122 of 2014).

Emissions to air, including noise, vibration and dust

The EIA should establish baseline air quality at the nearest sensitive receptors by means of background air quality monitoring. Air quality monitoring should be undertaken prior to the commencement of the Howth Harbour Proposed Dredging and Land Reclamation Project using the Bergerhoff Method as specified in the German TA Luft Air Quality Standards (TA

Luft 1986). Total dust deposition should not exceed 350mg/m2 /day when averaged over a thirty day period. This is a maximum limit and the CEMP should be such that dust depositions seldom reach this level.

Particular emphasis is placed on the importance of providing a detailed site- and project-specific Construction Environmental Management Plan (CEMP). The Construction Environmental Management Plan should include dust minimisation and suppressions measures to be employed to minimise the impact of dust emissions from the construction of the road. Methods can include, but are not limited to

- Wheel washing of construction vehicles
- Covering every load on vehicles delivering loose construction material to the site
- If sand, gravel or similar materials are stockpiled on site, they should be covered to prevent wind- blown dust
- The regular spraying and washing of roads used to haul construction materials
- Undertaking of regular vehicle maintenance to minimise potential significant Impacts from noise from construction vehicles

The existing background noise level should be considered when assessing the impact of noise from the proposed development on local receptors and when setting Emission Limit Values (ELVs).

Details of the location and frequency of noise monitoring should be included in the EIA.

Staff Welfare Facilities

It is noted that Staff Welfare Facilities will be provided on site. Details must be provided in the EIAR as to how it is proposed to dispose of any waste and effluent generated from such facilities. A potable water supply should be provided to staff welfare facilities.

Public consultation

The Environmental Health Service emphasises the need for early and meaningful public consultation in respect of the proposed dredging and land reclamation process. Accurate information should be obtained regarding the location of sensitive receptors referred to above. There should be on-going engagement with these receptors and with local

An Roinn Cultúir,
Oidhreachta agus Gaeltachta
Department of Culture,
Heritage and the Gaeltacht

Our Ref: **G Pre00032/2020**
(Please quote in all related correspondence)

15 April 2020

Graeme Thornton,
Senior Environmental Scientist
Malachy Walsh and Partners
Engineering and Environmental Consultants
The Elm Suite,
Loughmore Centre,
Raheen Business Park,
Limerick.
V94 R578

Via email: graeme.thornton@mwp.ie

Re: Pre-planning consultation on Proposed Dredging and Land Reclamation Project at Howth Harbour, County Dublin

A chara

On behalf of the Department of Culture, Heritage and the Gaeltacht, I refer to correspondence received in connection with the above.

Outlined below are heritage-related observations/recommendations of the Department under the stated heading.

Underwater Archaeology

It is noted that the proposed aquaculture site is located in an area of high underwater archaeological potential. The Wreck Inventory of Ireland Database lists numerous wrecks for Howth Harbour and its environs, which are subject to statutory protection under section 3 of the 1987 National Monuments (Amendment) Act. Given the location of the proposed site and the nature of the works it is possible that underwater archaeology may be impacted by the aquaculture operations It is therefore recommended that an Underwater Archaeological Impact Assessment, as described below, shall be undertaken to assess the impact of the development on known or potential archaeology prior to any works proceeding at the site. This will enable this Department to formulate an informed archaeological recommendation before a planning decision on the development is taken.

It should be borne in mind, that if significant archaeological remains are found, refusal might still be recommended, and/or further monitoring or excavation required.

Underwater Archaeological Impact Assessment shall be compiled as follows:

1. The applicant is required to engage the services of a suitably qualified archaeologist to carry out an archaeological assessment of the potential impacts of the development/proposed works.

2. The assessment shall comprise of a detailed desktop study, with the archaeologist carrying out any relevant documentary research including consulting with the Wreck Inventory of Ireland, the Record of Monuments and Places all of which are held by this Department. The Topographical Files held by the National Museum of Ireland should also be consulted. The assessment should also include a detailed Archaeological Impact Statement including a detailed description of the proposed works and the impact they will have on known and/or potential archaeology.

3. The archaeologist shall carry out a geophysical survey (sidescan and magnetometer) of all areas that may be impacted both directly and indirectly by the proposed works. The geophysical surveys should be carried out under licence granted under section 2 of the National Monuments Act 1987.

4. Having completed the work, the archaeologist shall submit a written report to this Department for review.

5. Where archaeological material/features are shown to be present, preservation *in situ*, avoidance, preservation by record (archaeological excavation) or archaeological monitoring may be required. The applicant shall be prepared to be advised by the Department of Culture, Heritage and the Gaeltacht in this regard.

If any clarification is required on any of the above please do not hesitate to contact this Department. An officer from this Department would also be available to meet to discuss the above.

It should be borne in mind, that if significant archaeological remains are found, further archaeological mitigation might be required.

The above observations/recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations that the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority, in her role as statutory consultee under the Planning and Development Act, 2000, as amended.

You are requested to send further communications to this Department's Development Applications Unit (DAU) at manager.dau@chg.gov.ie (team monitored); if this is not possible, correspondence may alternatively be sent to:

The Manager
Development Applications Unit (DAU)
Department of Culture, Heritage and the Gaeltacht
Newtown Road
Wexford
Y35 AP90

Is mise, le meas

Sinéad O' Brien
Development Applications Unit

Graeme Thornton

From: Yvonne Jackson [Yvonne.Jackson@failteireland.ie]
Sent: Wednesday 11 March 2020 16:11
To: Graeme Thornton
Subject: Proposed Dredging & Land Reclamation Project, Howth Harbour, Co. Dublin
Attachments: Fáilte Ireland EIAR Guidelines.pdf

Hello Graeme,

Thank for your letter regarding consultation on the **Proposed Dredging and Land Reclamation Project, Howth Harbour, Co. Dublin.**

Please see attached a copy of Fáilte Ireland's Guidelines for the Treatment of Tourism in an EIS, which we recommend should be taken into account in preparing the EIAR. The purpose of this report is to provide guidance for those conducting Environmental Impact Assessment and compiling an Environmental Impact Assessment Reports (EIAR), or those assessing EIARs, where the project involves tourism or may have an impact upon tourism. These guidelines are non-statutory and act as supplementary advice to the EPA EIAR Guidelines outlined in section 2.

Fáilte Ireland have a dedicated e-mail address for planning information, applications, documentation etc. So, for all future planning related information please send by e-mail to planning.applications@failteireland.ie
This will ensure the information/notifications will get to the Environmental & Planning Unit Team and reviewed in a timely manner.

Regards,

Yvonne Jackson

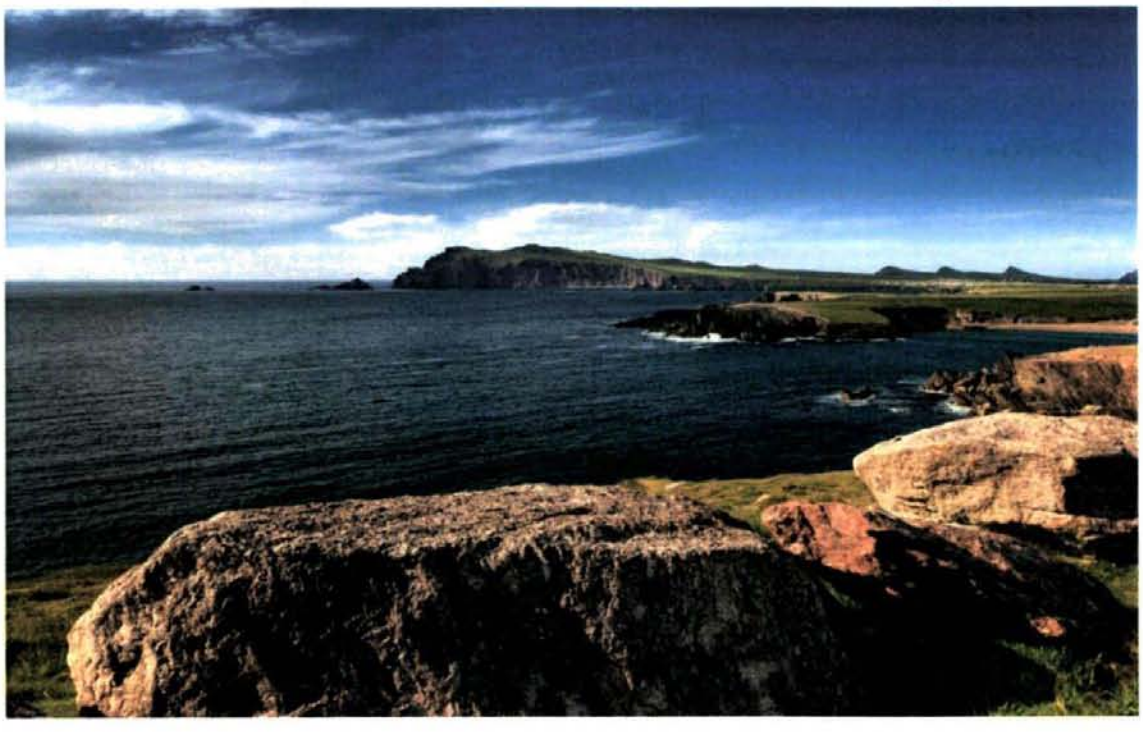
Yvonne Jackson
Product Development-Environment & Planning Support | Fáilte Ireland
Áras Fáilte, 88/95 Amiens Street, Dublin 1. D01WR86
T +353 (0)1 884 7224 | **www.failteireland.ie**

Fáilte Ir

Please consider the environment before printing this email

Fáilte Ireland
National Tourism Development Authority

EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects



An tÚdarás Náisiúnta Forbartha Turasóireachta
Áras Fáilte, 88–95 Sráid Amiens
Baile Átha Cliath 1
D01 WR86
Éire

National Tourism Development Authority
Áras Fáilte 88 - 95 Amiens Street
Dublin 1
D01 WR86
Ireland

Phone 1890 525 525
or +353 1 884 7700
Email info@failteireland.ie
www.failteireland.ie

Contents

1. Introduction

Tourism is a growing sector and substantial part of the Irish Economy. It contributes to both urban and rural economies in every part of the country. The impact and interaction of tourism with the environment is complex and the assessment of environmental impacts is of utmost importance to creating a sustainable tourism economy and protecting the natural resources that are so often a tourism attraction.

The purpose of this report is to provide guidance for those conducting Environmental Impact Assessment and compiling an Environmental Impact Assessment Reports (EIAR), or those assessing EIARs, where the project involves tourism or may have an impact upon tourism. These guidelines are non-statutory and act as supplementary advice to the EPA EIAR Guidelines outlined in section 2.

This guidance document has been prepared by Cunnane Stratton Reynolds on behalf of Fáilte Ireland to update their EIA guidelines in line with changes in legislative requirements.

2. Background to this Document

Tourism is one of the largest and most important sectors of the economy, providing employment for approximately **260,000 people**, an economic contribution of **€8.4 billion**, and exchequer revenue of **€1.78 billion** in 2018, which helps fund other key public services.

In 2018 Ireland welcomed **10.6 million overseas visitors.**

Fáilte Ireland is the National Tourism Development Authority. Fáilte Irelands role is to support the tourism industry and work to sustain Ireland as a high-quality and competitive tourism destination. They provide a range of practical business supports to help tourism businesses better manage and market their products and services.

Fáilte Ireland also work with other state agencies and representative bodies, at local and national levels, to implement and champion positive and practical strategies that will benefit Irish tourism and the Irish economy.

Fáilte Ireland promotes Ireland as a holiday destination through a domestic marketing campaign (DiscoverIreland.ie) and manage a network of nationwide tourist information centres that provide help and advice for visitors to Ireland.

Tourism related projects cover a broad range of plans, programmes and developments, from the Wild Atlantic Way to a single hotel conversion. These guidelines apply to projects involving or impacting upon tourism. A tourism plan, strategy or programme where it is part of the statutory plan making process under the Planning and Development Acts (as amended), may be more appropriately assessed by a Strategic Environmental Assessment (SEA) as discussed in the next section.

It should be borne in mind that EIA is required where there is anticipated to be a significant impact on the environment, where tourism projects are of a prescribed type or meet thresholds identified below.

Where Natura 2000 Designated Sites are potentially affected by tourism development Appropriate Assessment must be carried out by the appropriate authority in accordance with Article 6(3) of the EU Habitats Directive.

3. Legislation and Statutory Guidance

Environmental Impact Assessment is a procedure that ensures that the environmental implications of decisions are taken into account before planning based decisions are made. The assessment results in a report, called an Environmental Impact Assessment Report (EIAR).

Legislation

These guidelines are produced under current EIAR legislative requirements, having regard to Directive 2011/92/EU (known as 'Environmental Impact Assessment' – EIA Directive), as amended by Directive EU 2014/52 which came into effect in May of 2017. These requirements were transposed into Irish Law on 1 September 2018 as most of the provisions of the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) came into effect. The principle of both Directives is to ensure that plans, programmes and projects likely to have significant effects on the environment are made subject to an environmental assessment, prior to their approval or authorisation.

Statutory Guidance

In response to the changes to the EIAR requirements under Directive EU 2014/52, the Environmental Protection Agency (EPA) developed Draft guidelines on the information to be contained in Environmental Impact Assessment Reports in August 2017. At the time of this document the guidelines have not been adopted from draft.

In addition to the EPA statutory guidance, the Department of Housing has produced Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment in August 2018.

The process of EIA is set out in the EPA EIAR Guidelines, which this document should be read in conjunction with and used as supplementary guidance to. The process for ascertaining whether an EIAR is required is known as 'screening' and the process to determine the breath and scope of an EIAR is known as 'scoping'. Guidance on this can be found in Section 3.2 of the EPA Guidelines.

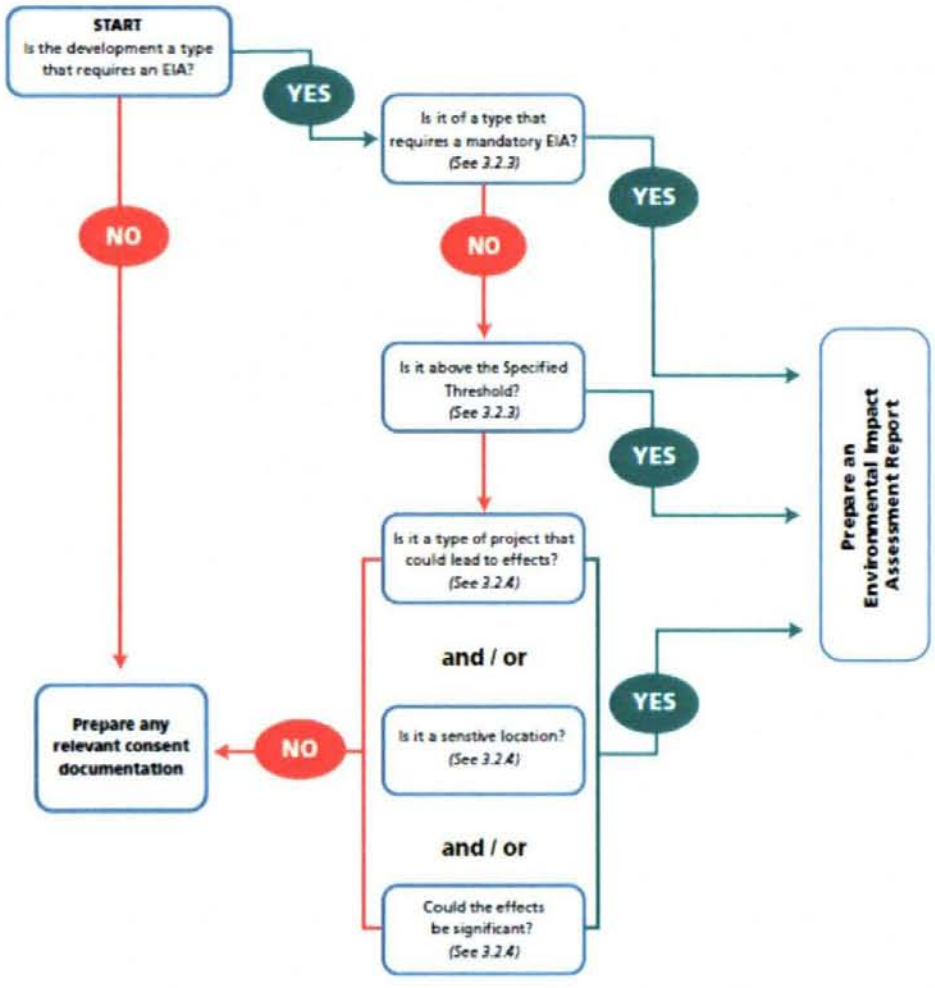
Screening

Through EIAR Screening, developments are either considered as requiring an EIAR due to the project type or because they exceed a threshold level. The screening process begins by establishing whether the proposal is a 'project' as understood by the Directive (as amended).

The prescribed development types and thresholds are set out in Annex I and II of the EIA Directive as transposed into Schedule 5 of the Planning and Development Regulations 2010-2018 (as amended). Development which do not exceed these thresholds but may require an EIAR are called sub threshold. Sub-Threshold considerations are outlined in Schedule 7 of European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) as transposed from Annex III of the Directive. The Guidelines on Environmental Impact Assessment Reports note that projects at first glance may not appear to come under the Schedule

but on closer examination when the process is further examined, they may do so because of the sensitivity or significance of the receiving environment etc. Sub threshold developments require an EIAR if they are likely to have significant environmental impacts and must undergo assessment for likely significant impacts through an EIAR screening report. The contents of a screening report for subthreshold development are contained in Annex III of the EIA Directive.

Figure 1: EIAR Screening Process



(Taken from Fig 3.2 of the EPA Guidelines)

Tourism locations should be identified as sensitive receptors in screening assessments for particular impacts, depending on scale and sensitivity, as they would in a full EIAR. Section 6 below can act as guidance for Screening Reports as well as for full EIAR.

The screening process for considering where an EIAR is necessary, is summarised below in Figure 1 (excerpted from Figure 3.2 of the EPA Guidelines).

Strategic Environmental Assessment (SEA) is a more strategic level of environmental assessment that examines plans, policies, objectives and programmes specifically rather than projects. For some tourism developments it may be more appropriate that they be examined through SEA, while individual projects or specific proposals are likely to be more assessed through EIAR. If a project is part of a plan, programme or policy/objective assessed by SEA there will still be a requirement for an EIAR for that development.

EIAR Scoping

Scoping an EIAR is an opportunity to look at the breadth of issues and ensure that any areas of possible significant impact are assessed. Identifying sensitivities and stakeholders should take account of tourism facilities and consider Fáilte Ireland in scoping requests where necessary.

4. Assessing Tourism

There is no legal definition of 'tourism' in Irish legislation. The UNWTO definition of sustainable tourism is *"Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities"* . This is widely accepted as a key definition of tourism as we move to a more sustainable future.

Tourism assessments are frequently carried out by economic consultants and by specific tourism consultants. It is always advisable, particular for tourism projects, that suitably qualified and experienced personnel are used to determine the impact of tourism related projects or to assess the impact of more general proposals on a tourism asset identified in a particular location. There is a requirement for EIAR under current legislation to contain a statement of competency within all EIAR documents, including screening and scoping reports.

Projects which involve a tourism element

Tourism projects are wide ranging and diverse. While there are some projects which cater to tourism and are easily identified as such - Hotels, Museums, etc. there are other projects where tourism is a key service or element, but which may not be immediately obvious - forest trails, community facilities and others. EIAR conducted for developments containing tourist elements should be completed in accordance with the current guidance from the EPA.

Projects which include a tourism element have potential particular environmental effects which differ from a non-tourism development. These impacts can be intermittent, event related, inconsistent, dependent on weather, temporal, temporary or seasonal. This is considered within the prescribed environmental topics for EIAR outlined in Section 7 below.

Projects which may have an impact upon tourism

While tourism projects may be diverse, the projects which can impact tourism are considerably more wide ranging, from large infrastructural developments to local energy developments. Disruption to or suppression of a tourist resource or amenity can have very local or more strategic impacts, directly or indirectly- for example energy projects in a rural area can have both a negative and positive impact in different regards. There can be temporary, periodic or even seasonal impacts occurring during construction or operational periods.

According to the Fáilte Ireland Tourism Facts 2018 Report, the most important factors in determining the attractiveness of tourism destinations for visitors to Ireland are;

- Beautiful Scenery and Unspoiled Environment
- Hospitality
- Safety
- Nature, Wildlife and Natural Attractions
- History and Culture
- Pace of Life

These factors used for the promotion of tourism in Ireland are also barometers of sensitivity to change in tourism sensitive or dominant locations where development may have an impact upon the tourism asset. The potential for development to impact these sensitivities, and the environmental criteria under which they can be considered, are identified in section 7 of the guidelines.

5. Guiding Principles of EIAR

As outlined in the EPA Draft EIAR Guidelines, the fundamental principles to be followed when preparing an EIAR, including screening and scoping, are:

- Anticipating, avoiding and reducing significant effects
- Assessing and mitigating effects
- Maintaining objectivity
- Ensuring clarity and quality
- Providing relevant information to decision makers
- Facilitating better consultation.

Environmental assessment should be undertaken in accordance with the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

6. Consideration of Competency and Qualifications

As per Section 2.5 of the EPA Guidelines, EIAR is required to be completed by 'competent experts'.

Contributors to the preparation of environmental impact assessment reports, including screening and scoping assessments, should be qualified and competent. Sufficient expertise, in the relevant field of the project concerned, is required for the purpose of its examination by the competent authorities in order to ensure that the information provided by the developer is complete and of a high level of quality so that a full and proper assessment can be undertaken.

For tourism related projects, or projects likely to affect tourism assets, competent experts in the area of tourism should be utilised in the environmental assessment.

The competency of all involved in the production of an EIAR or any related report (eg. Screening and scoping) is required to be stated at the beginning of the EIAR report with further details as necessary in each following chapter.

Where tourism projects involve for example heritage or cultural components, input from heritage consultants, conservation architects, or historians may be required.

7. EIAR Requirements

The following are the key requirements for an EIAR under the current guidance. This is not a definitive list and should be read in conjunction with regulations.

- project description;
- assessment of alternatives considered;

- baseline assessment;
- impact assessment;
- cumulative impact
- interaction of impacts
- mitigation.

Project Description

Project descriptions are required to describe the whole project including site, scale, design and key factors. It is important that the EIAR and design team have a consistent understanding of the development description in full. The key requirements are outlined in section 3.5 of the EPA Guidelines however they identify the following;

- the location of the project
- the physical characteristics of the whole project
- the main characteristics of the operational phase of the project
- an estimate, by type and quantity, of the expected residues and emissions

The location of the project should include identifying key sensitive receptors (including tourism receptors). In the operational phase of the project any tourism based, or potentially tourism related activity, should be identified.

Assessment of Alternatives

The assessment of alternatives is a requirement of EIAR

Where tourism projects are location dependent the assessment of alternatives should consider alternative methods and technologies, detail the key considerations culminating in the selection of the design, the reasoning for these and the environmental effect of these decisions. This is particularly important for tourism projects which are often location tied. The developer is expected to consider reasonable alternatives. What is considered reasonable my vary from case to case.

Baseline Assessment

Baseline descriptions are evidence based, current descriptions of environmental characteristics with consideration of likely changes to the baseline environment evidenced in planning histories, unimplemented permissions, and applications pending determination. Baseline assessments should identify any tourism sensitivities in the zone of influence of a development. This zone of influence of a development is highly dependant on its **Context, Character, Significance,** and **Sensitivity**, as outlined in the Draft Guidelines. These characteristics apply to both the development and the environment.

For example, in a tourism context;

The location of sensitive tourism resources that are likely to be directly affected should be highlighted, and other premises which although located elsewhere, may be the subject of in combination impacts such as alteration of traffic flows or increased urban development.

The character of an area from a tourism perspective should be described and the principal types of tourism in the area. Where relevant, the specific environmental resources or attributes in the existing environment which each group uses or values should be stated and where relevant, indicate the time, duration or seasonality of any of those activities.

The significance of the tourism assets or activities likely to be affected should be highlighted. Reference to any existing formal or published designation or

recognition of such significance should be. Where possible the value of the contribution of such tourism assets and activities to the local economy should be provided.

If there are any significant concerns or opposition to the development known to exist among tourism stakeholders and interest groups, this should be highlighted. Identify, where possible, the particular aspect of the development which is of concern, together with the part of the existing tourism resource which may be threatened or impacted.

In addition, the baseline should include any methodologies employed in the study to obtain information, if particular databases are used to locate sensitive receptors they should be acknowledged. In relation to tourism information, the suggested information sources at the end of this document are a non-exhaustive list which may be of assistance in identifying tourism receptors.

Impact Assessment

The topics for consideration of impact are prescribed in the EIA Directive and transcribed into Irish law by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018). Impact assessment should contain the likely significant effects of a development arising from both construction and operation of a development. Advice on describing the effects is contained within the Draft Guidelines and includes the **quality, significance, extent, probability, type** and **duration** of the effect, with particular descriptors for each. In describing effects upon tourism receptors these descriptors should take account of the particular aspects and sensitivities of tourism, for example a temporary annual effect from a development may have different impacts upon tourism if it falls at peak season rather than off-peak.

Impact assessment should be carried out as per EPA guidelines and the best practice for that prescribed topic. It may be considered appropriate to consider impact on tourism assets under the 'material assets' topic below.

Population and Human Health

The consideration of tourism projects within the Population and Human Health is extensive, with impacts ranging from rural employment population impacts of seasonal tourism, to the health impact of air pollution from increased traffic in urban areas.

The impact upon tourism can be considered within this section through the sensitivities of Hospitality, Safety and Pace of Life. Changes in population can impact the perception of pace of life or safety in a particular location. Impacts upon these issues in areas which rely heavily on tourism or have a particular sensitive tourism generator should be considered in this section.

Biodiversity

Particular tourist activities can have a significant impact upon biodiversity. Landscapes which are 'unspoiled' can be attractors of tourism. However, the disturbance to ecology must be managed to minimise impact. Biodiversity is also a tourism asset and should be protected as such from other development and should be provided for in proposals where possible.

Land, Soils and Geology

A link between tourism and this prescribed environmental factor, beyond the normal development impacts, is rare, however particular activities or facilities which use geological features may have an impact upon soils and geology, such as mountain biking trails, recreational uses of old quarries etc. Indirect impacts such as material use for extensive landscaping and public realm should also be considered.

Water

Tourism uses can be water intense, depending on development type. Recreational use of a surface water feature, water-based leisure centres etc have different impacts to standard development.

Air Quality and Climate

Tourism impact upon air quality is dependent on activity proposed and sensitivity of the location.

Noise and Vibration

A link between tourism and this prescribed environmental factor, beyond the normal development impacts, is rare, however the impact upon tourism of issues of noise and vibration can be significant. Construction adjoining hotels for example should consider the sensitivity of the development and ensure mitigation is in place.

Material Assets; Traffic and Transport

The different transport patterns associated with tourism activities is a key impact of tourism and should be considered especially for tourism projects. These produce temporal and seasonal changes on the norm and specialist consideration and interpretation should be given. Tourism proposals should, where possible, be well served by public transport and should be accessible by modes other than the car. The impact of traffic on tourism assets can be substantial and can vary in severity according to season, the weather, etc. The impact of construction traffic can be a particular concern in tourism sensitive areas in terms of noise pollution and visual impact. The construction programme of developments should work to avoid peak tourism periods in tourism areas and should consider planned or anticipated tourism events and festivals.

Cultural Heritage

Cultural heritage can be a key component of tourism projects and the impact of tourism on the maintenance of cultural heritage should be given the utmost consideration, whether positive or negative. As a tourism attraction, cultural heritage should be strongly considered in non-tourism developments and the impact upon tourism considered as a potential impact.

Archaeology

Archaeology can be of tourism interest and can be an attractive or key component of tourism projects. Archaeology can be a tourism attractor but is generally not kept in situ except in key cases which could also be considered under cultural heritage.

Material Assets; Waste Management

Tourism is a resource heavy activity and can impact waste streams and waste segregation. Impacts here should be considered strongly and with knowledge of the variation that arises from the particular tourist activity. Waste and Waste disposal issues can also impact the perception of an unspoiled environment, effecting tourism, which should be considered.

Material Assets

Material assets are utilities and infrastructure. Tourism itself could be considered a material asset as its impact upon the economy and the infrastructure in place to support it is a material consideration in assessing economic impact.

Landscape

The visual impact of a tourism development, especially in locations which are visually sensitive or renowned for their scenic or landscape beauty, should be considered carefully. A

development intended to utilise or enjoy a particular vista or environment should minimise impact upon that environment.

Major Accident and Natural Disaster

There is a requirement for tourist developments to describe expected significant effects on the environment of the proposed development's vulnerability to major accidents and/or natural disasters relevant to it. Where appropriate measures should be identified to prevent or mitigate the significant adverse effects of such accidents or disasters, including resulting from climate change, on the environment and detail the preparedness for the proposed response.

Interaction of Effects

Where two or more environmental impacts combine or interact they should be considered under the prescribed topics. It is best practice to provide a table of interactions within an EIAR or EIAR Screening Report.

Mitigation

Mitigation should follow the hierarchy of minimisation in descending order of preference- Avoid, Reduce, Remedy

Avoid sensitive tourism resources- such as views, access and amenity areas including habitats as well as historical or cultural sites and structures.

Reduce the exposure of sensitive resources to excessive environmental impact

Reduce the adverse effects to tourism land uses and patterns of activities, especially through interactions arising from significant changes in the intensity of use or contrasts of character or appearance.

Remedy any unavoidable significant residual adverse effects on tourism resources or activities.

Mitigation measures must be measurable and achievable within the bounds of the project.

Cumulative Impact

The cumulative impact is that of the project combined with any known likely project which will interact or compound an environmental impact.

Transboundary Impact

Transboundary impacts should be included in EIAR. In the case of tourism, especially international travel, the transboundary impacts may not be proximate to the EIAR site.

8. Sources of information on Tourism

Information available online

Fáilte Ireland

Fáilte Ireland offers detailed research analysis and insights into the Irish Tourism Industry. The National Tourism Development Authority has a portfolio of research across a number of areas including facts an figures, briefing papers and reports and visitor feedback. The Fáilte Ireland website has a dedicated research library which can be accessed here

Tourism Ireland

Tourism Ireland is responsible for marketing the island of Ireland overseas as a holiday and business tourism destination. Tourism Ireland publishes a range of research documents including; visitor facts and figures, seasonal updates and industry insights which are accessible here

Local Authorities

Local Authorities are an invaluable source of information. They produce tourism strategies and audits of tourism assets within their jurisdiction. Local authorities will also produce landscape and seascape studies. Protected views and prospects as well as the record of protected structures and other designated protected buildings are contained within the Statutory Development Plans.

Regional Authorities

Regional Authorities can also be consulted on high level strategic tourism and potential Regional Spatial and Economic Strategies (RSESs) should be consulted.

Central Statistics Office

The Central Statistics Office (CSO) is Ireland's national statistical office and their purpose is to impartially collect, analyse and make available statistics about Ireland's people, society and economy. The Tourism and Travel Section of the Central Statistics Office is the major source for tourism statistics in Ireland and is updated regularly.

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Department of Communications,
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Geological Survey
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Malachy Walsh & Partners
The Elm Suite, Loughmore Centre
Raheen Business Park
Limerick, V94 R578
County Limerick

14 February 2020

Re: Land Reclamation Project at Howth Harbour

Your Ref: N/A
Our Ref: 20/34

Geological Survey Ireland is the national earth science agency and has datasets on Bedrock Geology, Quaternary Geology, Geological Heritage Sites, Mineral deposits, Groundwater Resources and the Irish Seabed. These comprise maps, reports and extensive databases that include mineral occurrences, bedrock/mineral exploration groundwater/site investigation boreholes, karst features, wells and springs. Please see our website for data availability and we recommend using these various data sets, when undergoing the EIAR, planning and scoping processes. Geological Survey Ireland should be referenced to as such and should any data or geological maps be used, they should be attributed correctly to Geological Survey Ireland.

Dear Graham,

With reference to your letter received on 06 February 2020, concerning the proposed dredging and land reclamation development at Howth Harbor, Co. Dublin, Geological Survey Ireland (a division of Department of Communications, Climate Action and Environment) welcomes the opportunity to provide input to the process at this early stage of the planning process and looks forward to further opportunities to consider the EIAR as outlined in your letter as the project progresses. We would like to make the following comments at this early stage:

Geoheritage

Geological Survey Ireland (GSI) is in partnership with the National Parks and Wildlife Service (NPWS, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs) 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 Irish Geoheritage Programme (IGH) of GSI, 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 (CGS), as adopted under the National Heritage Plan are now 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 audit for Co. Fingal was published in 2007 and full report details can be found here. **Our records show that there are no CGS located at the proposed development site however there are four CGS sites located within the wider vicinity of Howth:**

> **Claremont Strand**, Co. Fingal (GR 327310 239750, O 2731 3975), under IGH theme 8: Lower Carboniferous
>
> This is a 500m long section of fossiliferous Waulsortian limestone. It is found along Claremont strand halfway between Cush Point and Howth Harbour. As well as the Lower Carboniferous geology, good Quaternary sections, which make up a 5m high cliff, can also be observed east of the exposed limestone.

Balscadden Bay, Co. Fingal (GR 328920 239110 = O 2892 3911), under IGH theme 8: Lower Carboniferous

The coastal exposure along Balscadden Bay shows a faulted contact between the Lower Carboniferous dark muddy limestone of the Ballysteen Formation and the Cambrian polymict mélange of the Elsinore Formation. The contact between these two rock formations is a large fault zone, which juxtaposes older Cambrian rocks with much younger Lower Carboniferous rocks. This contact can be seen as fault breccia along the beach at Balscadden Bay. This is a good example of a faulted contact between Lower Carboniferous and Cambrian rocks making this site a good teaching locality and it is therefore is recommended as a County Geological Site.

North Bull Island, Co. Fingal (GR 722772E 736610N), under IGH theme 8: Lower Carboniferous

In times past, Dublin Bay had a long-running problem with silting, notably at the mouth of the River Liffey. After years of primitive dredging, a more effective attempt to maintain a clear channel was begun in 1715, when the first piles were driven of the Great South Wall, completed in 1830. It was during this period that the building of a North Bull Wall was also proposed, and when it was seen that the South Wall did not solve the silting problem, the authorities responsible for Dublin Port commissioned studies on the matter. In 1801 the survey highlighted the potential creation of the North Bull sandbank.
The Bull Wall was completed in 1825. Over the succeeding years, the natural tidal effects created by the walls deepened the entry to the Liffey from 1.8 m to 4.8 m. Much of the silt now scoured from the river course was deposited on the North Bull, and a true island began to emerge, with people venturing out onto the growing beach. The island is primarily a sand structure. The southeast facing side is a flat beach, backed by marram-grass-anchored dunes, scrub and marsh. On the northern side of the Bull, between the island and the mainland, is a large linear saltmarsh complex backed by mudflats all of which are covered at high tide. Several of the city's small rivers and streams enter the bay here, and the city's second largest river by volume, the River Tolka, has its estuary facing the city end of the island, into which the Wad River, and a combination of several smaller watercourses, also flow. This is a 500m long section of fossiliferous Waulsortian limestone. It is found along Claremont strand halfway between Cush Point and Howth Harbour. As well as the Lower Carboniferous geology, good Quaternary sections, which make up a 5m high cliff, can also be observed east of the exposed limestone.

Hill Of Howth, Co. Fingal (GR 328180 237840 = O 2818 3784), under IGH theme 4, 12 (Cambrian-Silurian, Mesozoic and Cenozoic)

Near the summit of Howth Hill, lying between Muck Rock and the Ben of Howth is a heavily vegetated, steep sided valley. This valley represents a large fault plane that creates a contact between the Drumleck Formation to the north and the Elsinore Formation to the south. A large number of outcrop exposures from both formations are found across this site, showing structures associated with faulting. This is an important site, recommended for County Geological Site status. It clearly demonstrates both small and large scale structural deformation within Cambrian rocks, making this an excellent teaching locality. It also has specialist research potential for Tertiary landscape evolution.

Therefore, with the current plan, there are no envisaged impacts on the integrity of current CGSs by the proposed development. However, we would like the development company to consider at this stage the inclusion of informative signage within the development that might draw the public's attention to the presence of these significant sites within the environment and could be included under the heritage and geotourism aspects of the local development plan. Geological Survey Ireland would be more than happy to assist with the provision of specific geological information and text for any such signage should it be incorporated in Stage 4 (Finishings) of the project. Please contact Clare Glanville (Clare.Glanville@gsi.ie) for further information if applicable.

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Geotechnical Database Resources

Geological Survey Ireland continues to populate and develop our national geotechnical database and viewer with site investigation data submitted voluntarily by industry. The current database holding is over 7500 reports with 134,000 boreholes; 31,000 of which are digitised whish can be accessed through downloads from our Geotechnical Map Viewer. We would strongly recommend that this database be consulted as part of any baseline geological assessment of the proposed development as it can provide invaluable baseline data for the region or vicinity of the proposed development area. This information may be beneficial and cost saving for any site specific investigations that may be designed as part of the development.

Marine and Coastal Unit

Geological Survey Ireland's Marine and Coastal Unit manages programmes, projects and partnerships aimed at increasing our knowledge of the marine and coastal realm, developing new methods and tools for understanding coastal processes and taking action on climate change. Geological Survey Ireland's Marine and Coastal Unit in partnership with the Marine Institute, jointly manages INFOMAR, Ireland's national programme focused on seabed mapping; providing key baseline data for Ireland's marine sector. The Marine and Coastal Unit also manage coastal monitoring programmes providing data on coastal erosion and sea level rise including the Climate, Heritage and Environments of Reefs, Islands and Headlands (CHERISH) and the Coastal Vulnerability Index (CVI) mapping projects. We would therefore recommend use of our Marine and Coastal Unit datasets available on our website and Map Viewer.

Geohazards

Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. In Ireland, landslides are the most prevalent of these hazards. Geological Survey Ireland has information available on past landslides for viewing as a layer on our Map Viewer. Geological Survey Ireland also engages in national projects such as Landslide Susceptibility Mapping and GWFlood Groundwater Flooding, and in international projects, such as the Tsunami Warning System, coordinated by the Intergovernmental Oceanographic Commission of UNESCO. We recommend that geohazards be taken into consideration, especially when developing areas (such as coastal) where these risks are prevalent, and we encourage the use of our data when doing so.

Natural Resources (Minerals/Aggregates)

Geological Survey Ireland is of the view that the sustainable development of our natural resources should be an integral part of all development plans from a national to regional to local level to ensure that the materials required for our society are available when required. Geological Survey Ireland highlights the consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process. Geological Survey Ireland provides data, maps, interpretations and advice on matters related to minerals, their use and their development in our Minerals section of the website. The Active Quarries, Mineral Localities and the Aggregate Potential maps are available on our Map Viewer.

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. Should any significant bedrock cuttings be created, we would ask that they will be designed to remain visible as rock exposure rather than covered with soil and vegetated, in accordance with safety guidelines and engineering constraints. In areas where natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface and could be included as additional sites of the geoheritage dataset, if appropriate. Alternatively, we ask that a digital photographic record of significant new excavations could be provided. Potential visits from Geological Survey Ireland to personally document exposures could also be arranged. The data would be added to GSI's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to Beatriz Mozo, Geological Mapping Unit, at Beatriz.Mozo@gsi.ie, 01-678 2795.

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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 (Clare.Glanville@dccae.ie).

Yours Sincerely,

Dr. Clare Glanville
Senior Geologist, Planning and Geoheritage Programmes

FINGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Balscadden Bay**		
Other names used for site			
IGH THEME:	IGH 8 (Lower Carboniferous)		
TOWNLAND(S)	Howth		
NEAREST TOWN	Howth		
SIX INCH MAP NUMBER	15, 16		
NATIONAL GRID REFERENCE	328920 239110 = O 2892 3911		
1:50,000 O.S. SHEET NUMBER	50	**1/2 inch Sheet No.**	16

Outline Site Description
Coastal cliffs within a small bay area.

Geological System/Age and Primary Rock Type
Lower Carboniferous limestone and Cambrian polymict mélange (an ill-assorted mixture of various fragmented rock types).

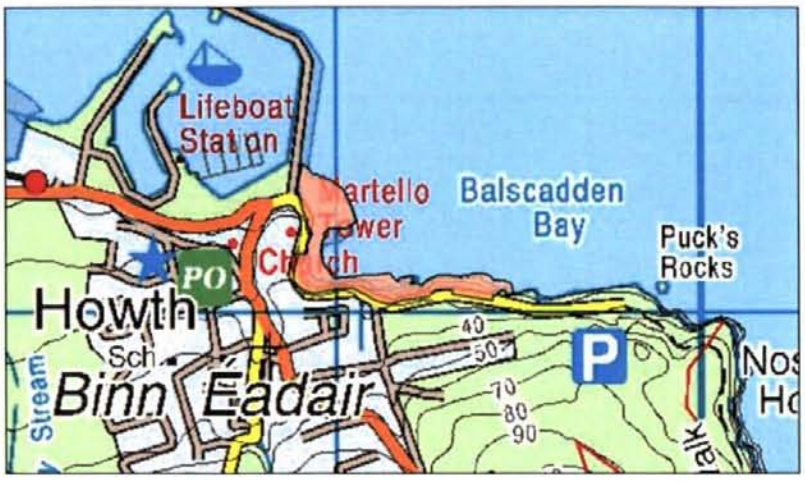
Main Geological or Geomorphological Interest
The coastal exposure along Balscadden Bay shows a faulted contact between the Lower Carboniferous dark muddy limestone of the Ballysteen Formation and the Cambrian polymict mélange of the Elsinore Formation. The contact between these two rock formations is a large fault zone, which juxtaposes older Cambrian rocks with much younger Lower Carboniferous rocks. This contact can be seen as fault breccia along the beach at Balscadden Bay.

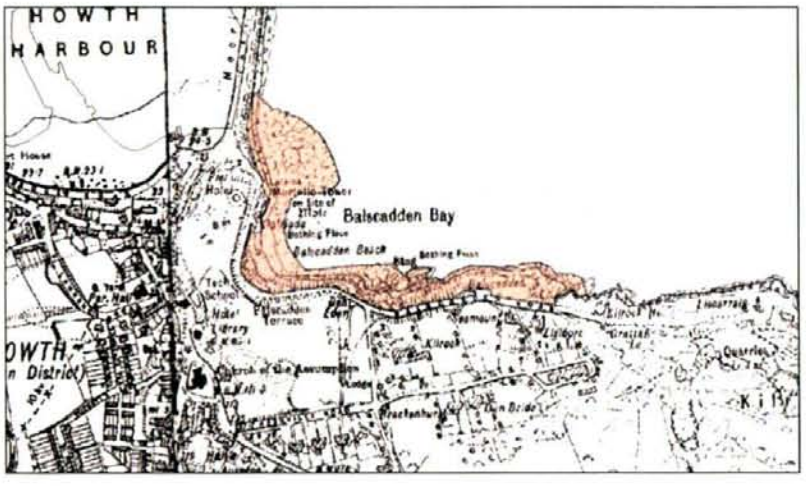
Site Importance
This is a good example of a faulted contact between Lower Carboniferous and Cambrian rocks making this site a good teaching locality and it is therefore is recommended as a County Geological Site.

Management/promotion issues
This site already lies within the existing pNHA and SAC of Howth Head (202). Access is by means of a public footpath and steps, which lead down to a small shingle beach. Care should be taken during periods of high tide and rough seas as nearly all the geological interest is along the waterline.

Right: A section along Balscadden Bay displaying fault breccia (a type of altered and fractured rock that is produced along a fault line).
Right: View of the Cambrian coastal exposure of the Elsinore Formation along Balscadden Bay.

Balscadden Bay





FINGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Claremont Strand**		
Other names used for site			
IGH THEME:	IGH 8 (Lower Carboniferous)		
TOWNLAND(S)	Burrow		
NEAREST TOWN	Howth, Sutton		
SIX INCH MAP NUMBER	15		
NATIONAL GRID REFERENCE	327310 239750 = O 2731 3975		
1:50,000 O.S. SHEET NUMBER	50	**1/2 inch Sheet No.**	16

Outline Site Description
Coastal and foreshore section.

Geological System/Age and Primary Rock Type
Lower Carboniferous (Waulsortian) limestone.

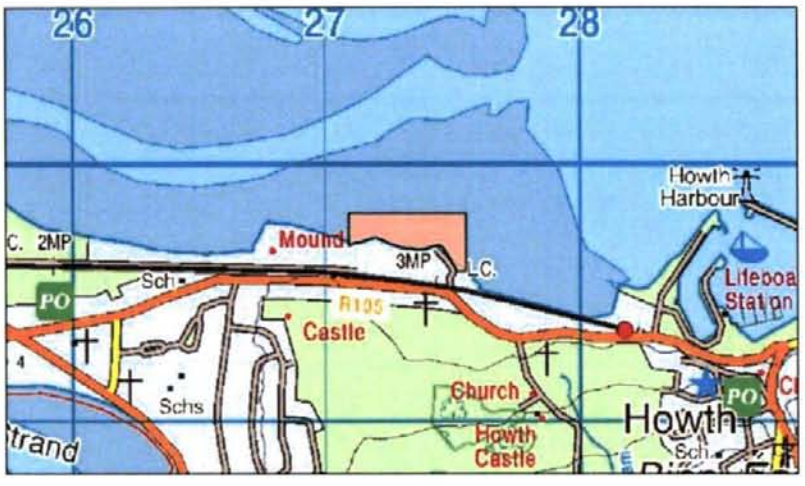
Main Geological or Geomorphological Interest
This is a 500m long section of fossiliferous Waulsortian limestone. It is found along Claremont strand halfway between Cush Point and Howth Harbour. As well as the Lower Carboniferous geology, good Quaternary sections, which make up a 5m high cliff, can also be observed east of the exposed limestone.

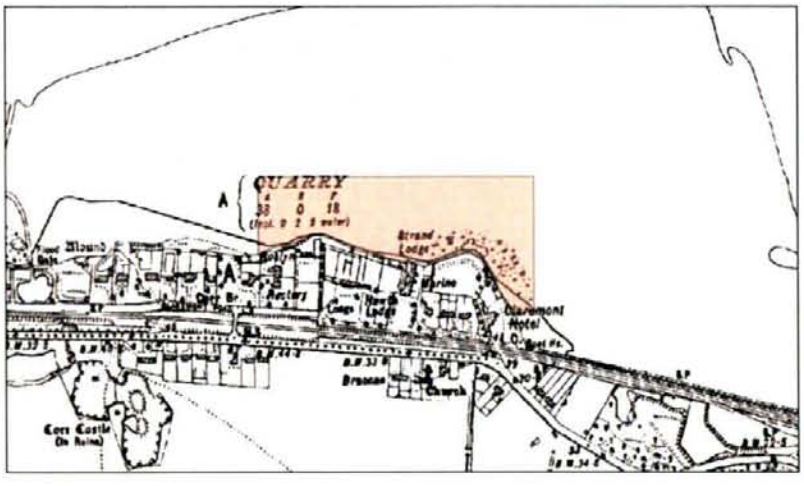
Site Importance
This site lies within the Baldoyle Bay pNHA and SAC (199). It is an excellent example of easily accessible Lower Carboniferous limestone as well as a good fossil locality and is recommended as a County Geological Site.

Management/promotion issues
As this site already lies within an existing pNHA there are no major management problems. It should be noted that most of this rocky coastal exposure is only accessible during periods of low tide.

Left: Fossilised crinoid stem found within the Waulsortian limestone at Claremont Strand. A crinoid is a marine animal found in both shallow and deep waters. Living examples of these can be seen in deep modern oceans.
Right: Coastal exposure of Waulsortian limestone found along Claremont Strand.

Claremont Strand





FINGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Hill of Howth**		
Other names used for site			
IGH THEME:	IGH 4, 12 (Cambrian-Silurian, Mesozoic and Cenozoic)		
TOWNLAND(S)	Sutton North		
NEAREST TOWN	Howth		
SIX INCH MAP NUMBER	15, 19		
NATIONAL GRID REFERENCE	328180 237840 = O 2818 3784		
1:50,000 O.S. SHEET NUMBER	50	**1/2 inch Sheet No.**	16

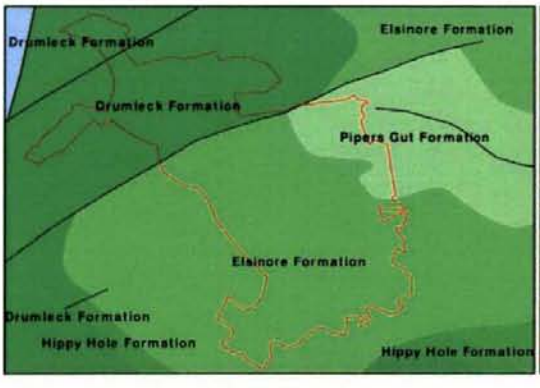
Outline Site Description
Valleys and rock outcrops on the Hill of Howth.

Geological System/Age and Primary Rock Type
Cambrian quartzite and mudstone mélange of the Drumleck Formation and polymict mélange of the Elsinore Formation.

Main Geological or Geomorphological Interest
Near the summit of Howth Hill, lying between Muck Rock and the Ben of Howth is a heavily vegetated, steep sided valley. This valley represents a large fault plane that creates a contact between the Drumleck Formation to the north and the Elsinore Formation to the south. A large number of outcrop exposures from both formations are found across this site, showing structures associated with faulting.

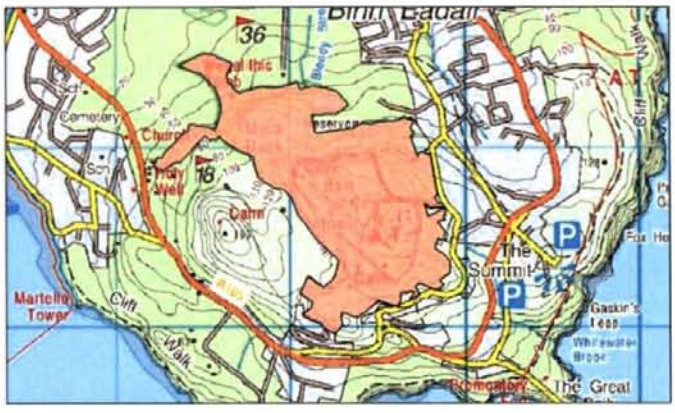
Site Importance
This is an important site, recommended for County Geological Site status. It clearly demonstrates both small and large scale structural deformation within Cambrian rocks, making this an excellent teaching locality. It also has specialist research potential for Tertiary landscape evolution.

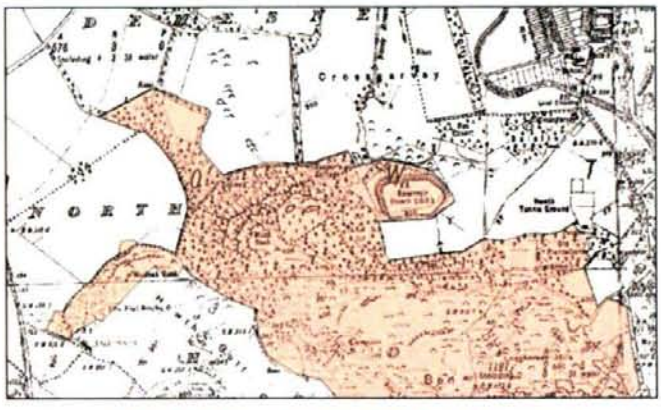
Management/promotion issues
This site lies within the existing pNHA and SAC of Howth Head (202) and is well used by locals as a walking route. Access to the site is by numerous public footpaths that criss-cross the area.

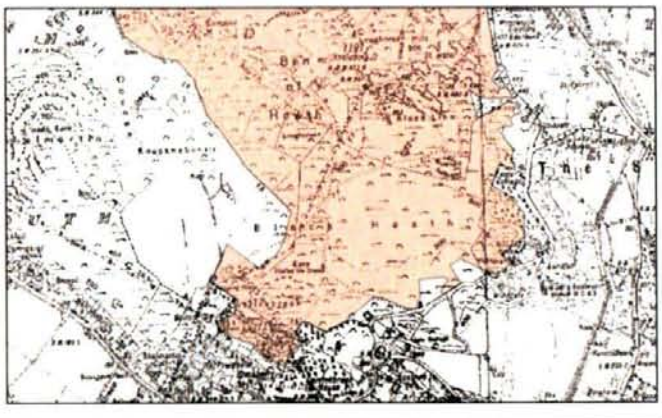


Top Left: Geological map of the Hill of Howth. The north east - south west trending fault can be seen here creating a contact between the Drumleck and Elsinore Formations (Site boundary marked with red line).
Top Right: Aerial photography showing the variation in vegetation across the fault line.
Bottom: View of Muck Rock, which is composed of Cambrian rocks of the Drumleck Formation

Hill of Howth







DUBLIN CITY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**North Bull Island**
Other names used for site	Bull Island, *Oileán an Tairbh*
IGH THEME	**IGH13 Coastal geomorphology**
TOWNLAND(S)	**Raheny, Clontarf**
NEAREST TOWN/VILLAGE	**Dublin**
SIX INCH MAP NUMBER	**15, 19**
ITM CO-ORDINATES	**722772E 736610N (centre of island)**
1:50,000 O.S. SHEET NUMBER	**50 GSI BEDROCK 1:100,000 SHEET NO. 16**

Outline Site Description
North Bull Island, about 5 km long and 800 m wide, is located in Dublin Bay, lying roughly parallel to the shore off Clontarf (including Dollymount), Raheny, Kilbarrack, and facing Sutton.

Geological System/Age and Primary Rock Type
The island, as well as the beach known as Dollymount Strand running its entire length, is a very recent, and inadvertent, result of human intervention in the bay in the last 200 years.

Main Geological or Geomorphological Interest
In times past, Dublin Bay had a long-running problem with silting, notably at the mouth of the River Liffey. After years of primitive dredging, a more effective attempt to maintain a clear channel was begun in 1715, when the first piles were driven of the Great South Wall, completed in 1830. It was during this period that the building of a North Bull Wall was also proposed, and when it was seen that the South Wall did not solve the silting problem, the authorities responsible for Dublin Port commissioned studies on the matter. In 1801 the survey highlighted the potential creation of the North Bull sandbank.

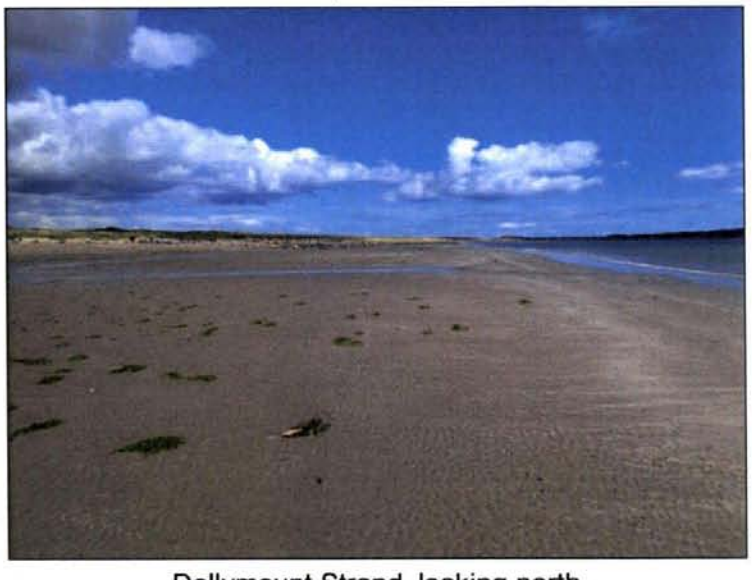
The Bull Wall was completed in 1825. Over the succeeding years, the natural tidal effects created by the walls deepened the entry to the Liffey from 1.8 m to 4.8 m. Much of the silt now scoured from the river course was deposited on the North Bull, and a true island began to emerge, with people venturing out onto the growing beach. The island is primarily a sand structure. The southeast facing side is a flat beach, backed by marram-grass-anchored dunes, scrub and marsh. On the northern side of the Bull, between the island and the mainland, is a large linear saltmarsh complex backed by mudflats all of which are covered at high tide. Several of the city's small rivers and streams enter the bay here, and the city's second largest river by volume, the River Tolka, has its estuary facing the city end of the island, into which the Wad River, and a combination of several smaller watercourses, also flow.

Site Importance - County Geological Site
The sand flats and the associated beach, dune, lagoon and slack features, make North Bull Island a textbook locality for the recognition of coastal deposition features. The island is already a proposed SAC (SAC 000206, North Dublin Bay), SPA and NHA for biodiversity reasons and the geodiversity of an active sedimentation system should be highlighted in any promotion of this. It is also one of only two reserves in Ireland under the UNESCO Man and Biosphere Programme.

Management/promotion issues
The location of the features of interest makes them easily accessible, and North Bull Island Bay is a popular recreational area given the number of fine beaches and walks around its perimeter. Information boards are worthy additions to the site, and explain the features' associated habitats, flora and fauna. The coastal geological processes involved in the formation of the feature has been, and should continue to be, highlighted within future literature produced on the island.

Some of the marshes and tidal mudflats on the western side of North Bull Island.

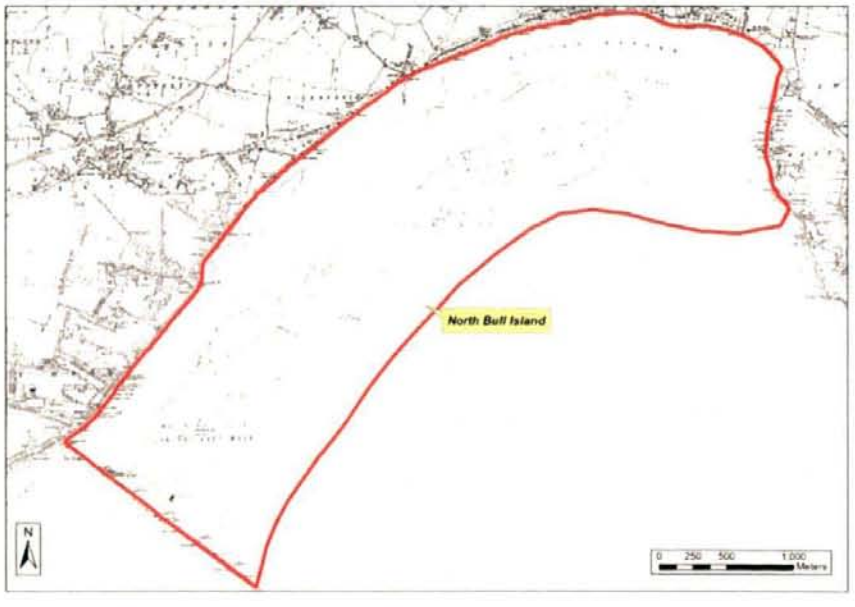
Dunes in the central portion of North Bull Island.



Dollymount Strand, looking north.


North Bull Island
DUBLIN HARBOUR
DUBLIN CITY
Baile Átha Cliath
DUBLIN BAY


North Bull Island
N
0 250 500 1,000
Meters


North Bull Island
N
0 250 500 1,000
Meters

A promotional map of North Bull Island showing the various coastal geological features associated with the site.

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Mr. Graeme Thornton
Senior Environmental Scientist
Malachy Walsh & Partners
The Elm Suite
Loughmore Centre
Raheen Business Park
Limerick
V94 R578

Dáta / Date	Ár dTag / Our Ref.	Bhur dTag / Your Ref.
25 February 2020	**TII20-108846**	

Re: EIA Consultation on proposed dredging and land reclamation project at Howth Harbour, Co. Dublin on behalf of The Department of Agriculture, Food and the Marine.

Dear Mr. Thornton,

Transport Infrastructure Ireland (TII) acknowledges receipt of your EIAR Scoping request by letter received 06 February 2020 in respect of the above proposed project.

The issuing of this correspondence is provided as best practice guidance only and does not prejudice TII's statutory right to make any observations, requests for further information, objections or appeals following the examination of any valid application referred.

The approach to be adopted by TII in making such submissions or comments will seek to uphold official policy and guidance as outlined in the Spatial Planning and National Roads Guidelines for Planning Authorities (2012). Regard should also be had to other relevant guidance available at www.TII.ie.

With respect to EIAR Scoping issues, the recommendations indicated below provide only general guidance for the preparation of EIAR, which may affect the national road network. The developer should have regard, *inter alia*, to the following;

1. As set out in the Spatial Planning and National Roads Guidelines, the primary purpose of the national road network is to provide strategic transport links between the main centres of population and employment, including key international gateways such as the main ports and airports, and to provide access between all regions. TII would be specifically concerned as to potential significant impacts the development would have on the national road network (and junctions with national roads) in the proximity of the proposed development.

2. Where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment (TTA) be carried out in accordance with relevant guidelines, noting traffic volumes attending the site and traffic routes to/from the site with reference to impacts on the national road and Luas networks, including junctions of lower category roads with those networks. TII's TTA Guidelines (2014) should be referred to in relation to proposed development with potential impacts on the national road network. The scheme promoter is also advised to have regard to Section 2.2 of the TII TTA Guidelines which addresses requirements for sub-threshold TTA.

3. The designers are asked to consult TII Publications to determine whether a Road Safety Audit is required.

4. Assessments and design and construction and maintenance standards and guidance are available at TII Publications that replaced the NRA Design Manual for Roads and Bridges (DMRB) and the NRA Manual of Contract Documents for Road Works (MCDRW).

5. Environmental Impact Assessment shall include provision for travel planning / mobility management planning in the interests of protecting national roads capacity in the interests of sustainable travel policy.
6. Metro North and all future light rail and bus route alignments are a matter for the NTA.

7. The subject site lies within Fingal local authority area. The NTA has published the Greater Dublin Area Transport Strategy 2016-2035.

Notwithstanding, any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practice.

I hope that the above comments are of use in your EIAR preparation.

Yours sincerely,

Natasha Crudden
Regulatory & Administration Unit

businesses and commercial operators during the EIA process. The EAIR should detail proposals for keeping them informed and any measures to be employed during the construction phase for dealing with enquiries and/or complaints from members of the public.

Construction activity should be limited to hours which are agreed as part of the consultation process with local residents and commercial operators who may be impacted by the construction work.

Lara Duffy
Senior EHO
Fingal Food Control
Environmental Health Service
1st Floor Nexus Building,
Blanchardstown Corporate Park
Ballycoolin
Dublin 15

Environmental Health Officer
Environment OU
Ennistymon Health Centre
Ennistymon
Co. Clare

Appendix 1.3

Online Public Presentation Information 12.03.2021

An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

Howth FHC Harbour Dredging and Reclamation Project

Public Consultation Information –

Proposed Planning Application at Howth Fishery Harbour Centre

Marine Engineering Division (DAFM) &
Malachy Walsh and Partners
2021

An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

Presentation Structure

- Introduction
- Site Background and Historical Works
- Description of Proposed Development
- Post Construction Operations
- Preparation of Planning Application
- Next Steps…

1 Introduction

Purpose of Presentation

- This presentation provides an overview of the proposed development at Howth Harbour, Co. Dublin.
- It outlines the Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) that are being prepared in support of the application.
- This application relates to the proposed dredging of Howth Harbour required to allow for the safe use of the harbour by vessels, and beneficial reuse of the dredge material in land reclamation.

Public Consultation Approach & Covid-19

- It had been intended to hold public meetings to discuss the information provided in this presentation, but this is now not possible, due to the restrictions applied by the Covid-19 measures on public gatherings.

- This presentation is being made available online to inform people of the planning application currently being prepared. It is intended to submit the planning application to Fingal County Council in May 2021.

- You may email any comments you have on the proposed application to the design team at howthengineering@agriculture.gov.ie. Comments received will be addressed as appropriate in the EIAR and NIS which will be submitted with the application.

- You will have the opportunity to make a formal observation to Fingal County Council when the application has been lodged.

- The Government has announced emergency planning measures, which will protect the rights of people to comment on planning applications submitted during the timeline of Covid-19 restrictions. Details on these measures can be found here – https://www.housing.gov.ie/.

2 Site Background and Historical Works

Historical Works and Project Need

- The harbour was upgraded in the 1980s in order to improve navigation conditions at the harbour mouth, reduce wave conditions within the harbour, provide additional facilities and increased water depths.
- The harbour was dredged and the reclaimed material used to upgrade the harbour layout.
- Works included the building of concrete quay walls, the construction of a Syncrolift shiplift and the creation of the middle pier, marina area and inner breakwater.
- Since the upgrade, a build up of silt has resulted in a rise in seabed levels. This siltation , combined with increasing vessel sizes results in insufficient water depth at certain tide states, over much of the harbour.
- The Public slipway and RNLI slipway & berth have seen considerable siltation, particularly at low tide, resulting in difficulty for the rescue vessels to mobilize.

Background to Application

- The fishing and marine commercial industry use Howth FHC extensively as a landing harbour.
- It also has an important role as a service harbour with vessels availing of the departmental boat lift and yard for servicing.
- Howth Harbour provides easy and close access to the markets, processing, servicing, technical and logistical benefits that the Greater Dublin Area brings.
- Howth Fishery Harbour Centre requires dredging in order to facilitate safe vessel access to the harbour during any tide state.

3 Description of Proposed Development

Project Aims

- To dredge the harbour, in order to restore adequate water depth for vessels using the harbour.
- To provide for access on the widest possible range of tides.
- To facilitate the use of the harbour by future vessels. Over the last 30 years, the fishing industry has seen the use of deeper and wider vessels.
- Provide for a mix of recreational public access green areas, slipway access to the water for small craft and provide areas for business, harbour operations and transport in line with the current designation of the West Pier.

The proposed development will involve the following main elements:

- Dredging of the harbour and reclamation of land on the West side of the West Pier using treated dredge material;
- The dredge material will be treated using soil stabilisation techniques prior to placement in the reclamation area. This will improve the strength of soil, bind in contaminants and minimise the potential for leachate;
- Coastal protection works to the perimeter of the reclaimed area;
- Landscaping on the reclaimed area and construction of footways, roadways and parking areas;
- Construction of slipway for access to the water;
- Construction of storage areas for harbour activities;
- Provision of necessary services.

Extent of Proposed Dredging and Reclamation

This image indicates the zones to be dredged within the harbour, and the proportional infill footprint that would be created, to the West of the West Pier

A more detailed site location and layout plan is provided in the following slides.

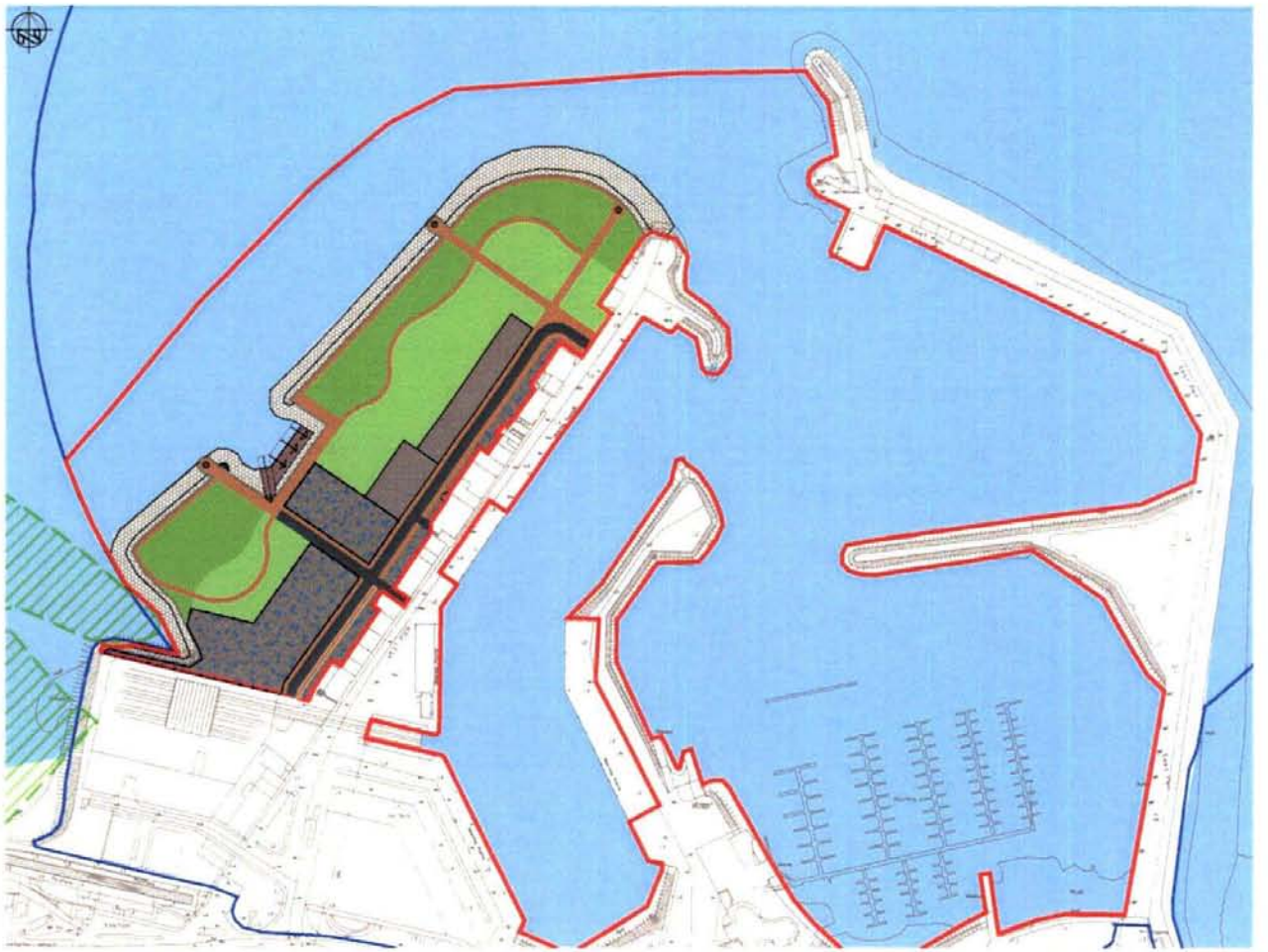
Proposed Site Layout and Land Use

Key

- Proposed Site Boundary
- Extents Of DAFM FHC Limits
- Extents Of Natura 2000 Site
- Hardstanding Areas For Harbour Operations
- Parking
- Pedestrian Walkways
- Roadways
- Natural Amenity Area
- Managed Amenity Area
- Rock Armour Revetment
- Slipway/Watersports Access

Land Use Percentages Of Reclaimed Land

Hardstanding Areas	23%
Parking	7%
Pedestrian Walkways	13%
Roadways	7%
Natural Amenity Area	23%
Managed Amenity Area	27%

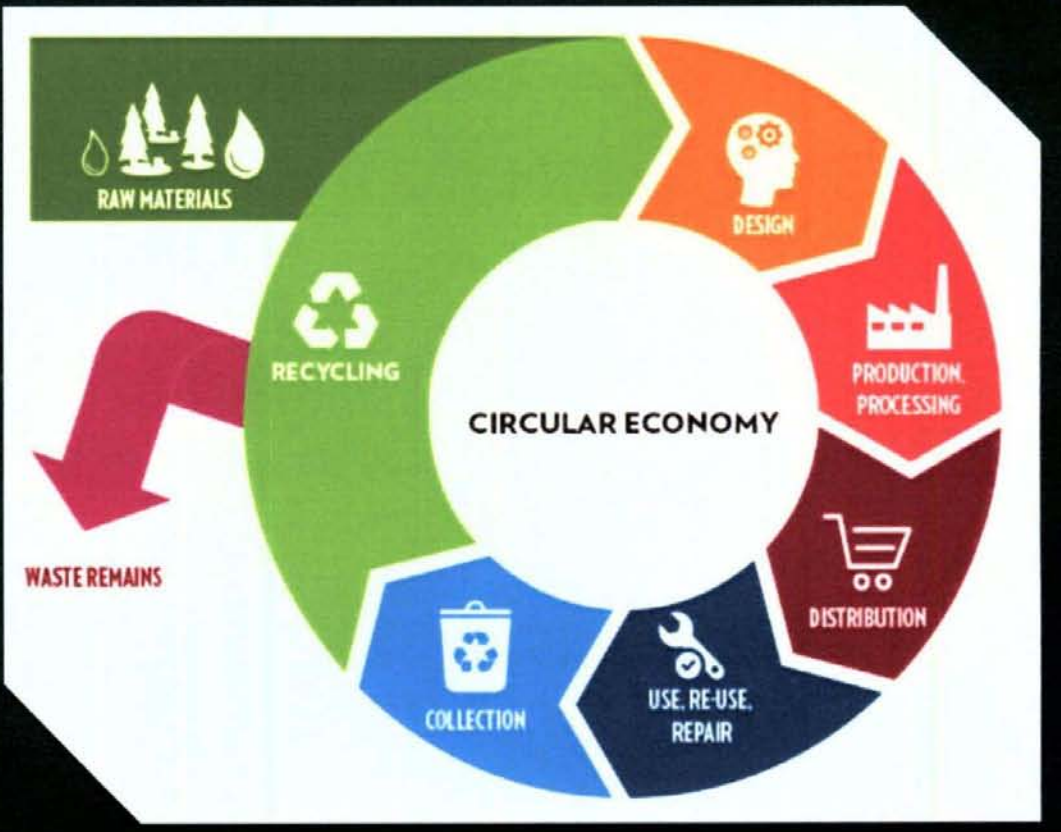


Proposed Development: aerial view from south west

Proposed Development: aerial views from north and north east

Proposed Development: aerial view showing water access area

4 Sustainability and Circular Economy



Sustainability and Circular Economy

The project will be designed and constructed with a strong emphasis on sustainability and circularity through the beneficial reuse of dredged material to deliver an enhanced harbour facility.

The benefits are as follows:

- Delivery in line with the aims and objectives of a Circular Economy as recommended under EU and national legislation
- Contributes to a reduced carbon footprint for Ireland
- Delivers a sustainable project solution
- Recognises and promotes environmental and economic benefits

Pushing sustainability and environmental focus further, the project will also aim to achieve CEEQUAL certification. CEEQUAL provides a framework for projects to integrate environmental, social and sustainability benefits which go above and beyond the usual planning requirements.

4 Post Construction

Enhancement of Current Harbour Operations

- Dredging of the harbour and reclamation of land on the West side of the West Pier presents a unique opportunity for expanding upon the recreational and educational potential of the area and other nearby natural environments of high quality.

- The reclamation will enhance the operations of the harbour while retaining its existing maritime industrial character.

- The creation of the new land will contribute to the diversity of the area as a major venue for leisure activities for a wide range of recreational users of the harbour and reinforce the pier as an important tourist destination.

Enhancement of Current Harbour Operations (contd.)

- Protection works to the perimeter of the reclaimed area will allow a substantial coastal linear park with a variety of publicly accessible amenity areas for passive recreation, expansive views and slipway access to the water for small craft.

- The incorporation of storage areas for fishing nets, equipment and machinery, combined with adequate provision for public footways, roadways, bus stops and car parking areas, will provide a vibrant safe and accessible maritime environment for people of all ages.

- The reclamation proposals build upon the social, architectural and maritime heritage significance of the harbour while offering increased opportunities for greatly enhancing the public's awareness of the environmental quality of the area and for experiencing the panoramic views from Portrane to Portmarnock to Baldoyle and Ireland's Eye.

5 Preparation of Planning Application

Planning Application Process

- A planning application is currently being prepared by the Department of Agriculture, Food and the Marine. It is intended that this application will be submitted to Fingal County Council (FCC) in May 2021.

- Consultation with statutory bodies, such as FCC, the EPA, Marine Institute, the National Monuments Service and the National Parks and Wildlife Service (NPWS) has been undertaken as part of the EIA and Appropriate Assessment process.

- The application will include the following documentation:

    - Planning Statement
    - Screening for Appropriate Assessment and Natura Impact Statement
    - Flood Risk Assessment
    - Environmental Impact Assessment Report (Volumes 1-3)
    - Infrastructure and Architectural Drawings

- Public observations to the planning application can be made to Fingal County Council when the application is lodged. Note that in line with emergency planning measures, due to Covid-19, the timeline for public consultation will be extended. For further information on these measures see https://www.housing.gov.ie/.

Environmental Impact Assessment Report (EIAR)

- An Environmental Impact Assessment Report (EIAR) is being prepared to accompany the planning application.
- The EIAR will be available for review along with all other planning documentation when the application is submitted.
- Comments to the design team on issues to be considered in the EIAR should be forwarded to: howthengineering@agriculture.gov.ie by 9th April 2021.

EIAR Study and Assessment Areas	Specific topics
Potential Impacts on Population and Human Health	Noise and Vibration
	Traffic
	Air Quality and Climate
	Water Quality
Potential Impacts on Landscape and Visual Resources	Changes in character and views
	Visual Impacts
Potential Impacts on Hydrology and Hydrogeology	Water Quality
	Surface water run-off and Control
	Flood Risk Assessment
Potential Impacts on Material Assets	Utilities
	Archaeology and Cultural Heritage
	Waste Management
Potential Impacts on Biodiversity and Natura 2000 Sites	Aquatic Ecology
	Terrestrial Ecology
	Appropriate Assessment
	Bird populations
Potential Impacts on Roads and Infrastructure	Traffic and Transport
	Traffic Management
	Visual Impacts

Industrial Emissions License

- An Industrial Emissions / Waste license will also need to be acquired from the EPA.

Appropriate Assessment (AA)

- An Appropriate Assessment (AA) is an evaluation of the potential impacts of a plan or project on the conservation objectives of a Natura 2000 site.
- The site is situated near several Special Protection Areas (SPA) and Special Areas of Conservation (SAC), the closest of which are Howth Head SAC, Baldoyle Bay SAC, Ireland's Eye SPA and Howth Head Coast SPA. There are a total of eighteen designated Natura 2000 within 15km of the proposed works.
- A Stage 2 Natura Impact Statement (NIS) is being prepared to support the planning application.
- Consultation with the NPWS and FCC has been undertaken as part of this assessment.
- The competent authority, in this case, Fingal County Council carries out the AA, based on the NIS and any other information it may consider necessary.

Special Protection Areas and Special Areas of Conservation

Assessment Summary

Surveys and Studies

- Ground investigation
- Contamination analysis
- Treatment trials
- Bird surveys
- Habitat mapping (marine and terrestrial)
- Archaeological survey
- Oceanographic survey
- Coastal process modelling
- Architectural heritage
- Risk assessment
- Other

Key Factors to be Assessed

- Ecological designated sites
- Biodiversity including marine ecology
- Contamination - assessment of sediments
- Archaeological and architectural heritage
- Landscape and visual
- Coastal process modelling
- Flood risk assessment
- Traffic
- Marine Mammals
- Soils and Geology
- Marine Mammals

6 Next Steps...

Next steps...

Comments on the proposed planning application can be directed to the design team at: howthengineering@agriculture.gov.ie by 9th April 2021

Comments received at this stage in the process will be addressed as appropriate in the EIAR and NIS.

The planning documentation, EIAR and NIS will be finalised in May 2021.

It is intended to submit the planning application to Fingal County Council in May 2021.

Formal observations on the planning application may be lodged with Fingal County Council when the application is lodged.

Fingal County Council will assess the planning application and any formal observation received before issuing a decision.

Data Protection

The Department of Agriculture, Food and the Marine (DAFM) are collecting the data.
The data processing is lawful under GDPR Article 6 1 (e) processing and is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller.
The data will be used to inform the Environmental Impact Assessment Report (EIAR), the Natura Impact Assessment (NIS) and overall design.
The email submissions will only be seen by DAFM and their Engineering and Environmental Consultants, Malachy Walsh and Partners.
The data will be held for a period of six years.

Thank you for taking the time to review this presentation.

Please email any comments to the Design Team on howthengineering@agriculture.gov.ie by the 9th April 2021.

Appendix 2.1

Geotechnical Investigation factual report

Our Ref: JMS/Rp/P19188 + attachments (*.pdf)

19th May, 2021

Messrs. Malachy Walsh & Partners
Reen Point,
Blennerville,
Tralee,
Co. Kerry.

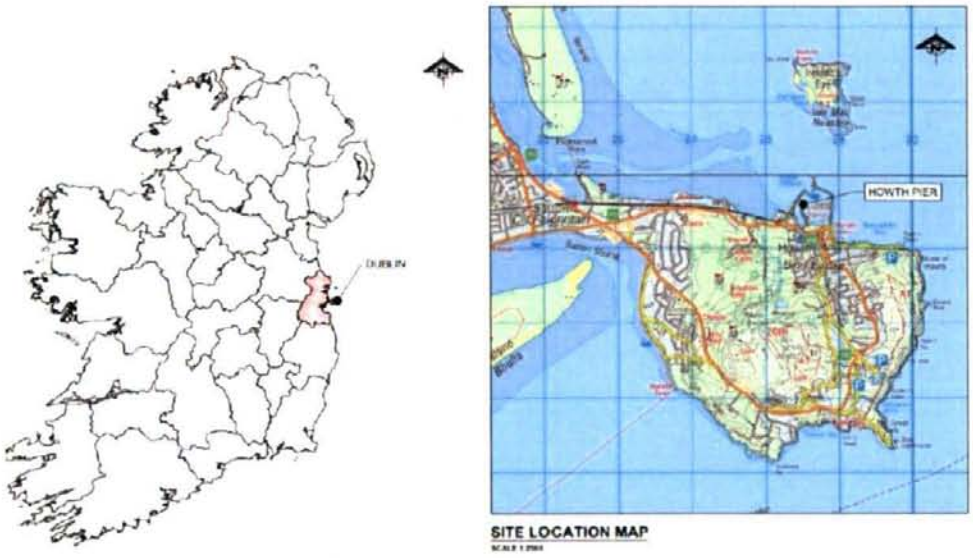
Re: Howth Fishing Harbour Centre Dredging – Ground Investigation, Factual Report.

Introduction

In September 2019, Priority Geotechnical (PGL) were requested by Malachy Walsh & Partners, Consulting Engineers (MWP) on behalf of their Client: Department of Agriculture, Food and the Marine to undertake a ground investigation for the Howth Fishing Harbour Centre Dredging project.

The port of Howth is one of six Fishery Harbour Centres owned and managed by the Minister for Agriculture, Food and the Marine. The Marine Engineering Division has responsibility for the delivery of Safety and Maintenance works and the management of Capital Works within the harbour.

This project involves the dredging of the area within the harbour and the potential reclamation of an area to the west of the western pier using processed dredge material.



SITE LOCATION MAP

Objectives

The purpose of this ground investigation is to provide detailed ground investigation information to inform and assess the geotechnical and environmental characteristics of the soils, sediments and rock at the site.

Scope

The scope of the ground investigation, which was specified by MWP Consulting Engineers, comprised of the following overwater works:

- Boreholes;
- Geophysical surveys;
- All associated *in situ* testing and sampling;
- Laboratory testing and
- Associated reporting.

This report presents the factual data with regard to the ground investigation for the Howth Fishing Harbour Centre Dredging project, Co. Dublin. This report should be read in conjunction with the exploratory and laboratory test data accompanying this factual report.

The works as completed is outlined hereafter.

Site Works

This investigation was carried out between the 05th and the 12th December, 2019 under the supervision of PGL, Engineering Geologist(s) in accordance with the contract specification: Eurocode 7- Geotechnical Design Part 2, ground investigation and testing (BS EN 1997-2: 2007) and the relevant British Standards BS 5930 (2015) Code of Practice for Site Investigation +A2:2010 and BS 1377, Method of Tests for Soil for Civil Engineering Purposes, *in situ* Tests Parts 1 to 9). Details of the plant and equipment used are detailed on the relevant exploratory records, attached.

Cable Percussion Boreholes

Two (2) cable percussion boreholes were bored to a depth 2.20m below ground level (bgl) to 2.7m bgl using PGL's Dando 2000 rig. The records accompany this report.

Location	Depth, m bgl
BH202	2.7
BH203	2.2

Rotary boreholes

Three (3) rotary boreholes were bored to a depth 3.2m below ground (seabed) level (bgl) to 7.9m bgl using PGL's EMCI 450 rotary rig. The records accompany this report.

Location	Depth, m bgl
RC201	7.9
RC202	6.3
RC203	3.2

Sampling

A total of twenty one (21) bulk bags (B) and rock core from the exploratory boreholes in accordance with Geotechnical Investigation and Sampling – Sampling Methods and Groundwater Measurements (EN ISO 22475-1:2006). Samples were retrieved by means of a Van Veen grab sampler (SP & GS locations), long reach arm excavator (LB locations) and cable percussion methods.

A total of twenty six (26) suite of environmental samples (ES) was taken at 0.0m bgl to 1.0m bgl. These were placed immediately in air-tight containers, which were filled to the top of the sample container. The sample suite consisted of: 2No. small disturbed samples (D) not less than 1.0kg, 2No. 250g amber glass sample containers and 2No. 60g amber glass sample containers.

The preparation for and methods of taking environmental samples, together with their size, preservation and handling was in accordance with British Standard BS 5930: 1981- Code of Practice for Site investigation, the contract documents and the Association of Geotechnical and Geoenvironmental Specialists (AGS) guide to environmental sampling, September 2010.

In Situ Testing

Standard penetration test

Eleven (11) number standard penetration tests, N_{SPT} values, were typically carried out in the boreholes using the 60° solid cone (CPT) in place of the standard split barrel sampler. The Standard Penetration Test was carried out in accordance with Geotechnical Investigation and Testing, Part 3 Standard penetration test, BS EN ISO 22476-3:2005+A1:2011. The data is presented on the exploratory rotary logs, accompanying this factual report.

Survey and Drawings

Upon completion of the fieldworks, the 'as built' exploration locations were surveyed using Trimble 5700/5800 GPS equipment to the Ordinance Survey Irish Transverse Mercator system of co-ordinates (ITM) and elevations to Malin Head datum. The exploratory locations were shown on the exploratory location plans attached.

Location	Easting	Northing	Level (mOD)
BH202	728274.25	739734.79	-3.09
BH203	728375.94	739859.78	-4.39
GS201	728224.00	739695.00	-
LB201	728434.92	739752.39	-
LB202	728380.67	739673.92	-
LB203	728410.21	739503.81	-
LB204	728710.83	739802.48	-
LB205	728822.12	739735.25	-

Location	Easting	Northing	Level (mOD)
LB206	728836.12	739666.92	-
LB207	728808.03	739474.97	-
RC201	728218.35	739685.99	-2.34
RC202	728274.25	739734.79	-3.09
RC203	728375.94	739859.78	-6.89
SP01	728445.00	739387.00	-
SP02	728360.00	739407.00	-
SP03	728343.34	739496.52	-6.28
SP04	728366.00	739489.00	-
SP05	728345.00	739565.00	-
SP06	728425.00	739601.00	-
SP07	728351.00	739619.00	-
SP08	728437.40	739684.33	-5.51
SP09	728416.00	739715.00	-
SP10	728494.00	739751.00	-
SP11	728503.00	739824.00	-
SP12	728548.00	739798.00	-
SP13	728545.20	739754.02	-5.36
SP14	728701.04	739720.18	-4.52
SP15	728735.00	739715.00	-
SP16	728578.00	739655.00	-
SP17	728541.00	739617.00	-
SP18	728465.00	739578.00	-
SP19	728574.00	739516.00	-
SP20	728597.00	739386.00	-
SP21	728735.00	739427.00	-
SP22	728783.00	739433.00	-
SP23	728792.47	739389.37	-0.98

Laboratory Testing

Laboratory testing was scheduled by Malachy Walsh in collaboration with PGL. Testing was carried out by PGL in accordance with BS1377 (1990), Methods of test for soils for civil engineering purposes and the ISRM suggested methods for rock characterisation, testing and monitoring. Testing was undertaken by the EPA, Chemtest UK Ltd. And Socotec labs on behalf of PGL.

Please note that all samples shall be retained for a period no longer than 28 days from the date of this report. Thereafter all remaining samples shall be appropriately disposed of unless a written instruction to the contrary is received by PGL prior to the date of this reporting and within the 28 day period outlined above. Laboratory testing will result in a reduction of sample quantity and in some cased the use of the full sample mass. Samples already tested may not be suitable or available for further testing.

The laboratory test data is attached and is summarised as follows;

Environmental Testing		
Type	**Nr.**	**Comment**
Gamma Spectrometry	02	See attached results
Suite A	23	See attached results
Suite B	10	See attached results
Suite E	20	See attached results

Desk Study - Published Geology

The Geological Survey of Ireland, 1:100,000 mapping (Sheets 16) was reviewed to determine the geology of the site. The geology of the exploratory locations were underlain by three geological formations namely, Waulsortian Limestones (WA, Massive unbedded Limestone), the Ballysteen formation (BA, dark muddy Limestone & Shale) and the Elsinore Formation (EL, Polymict melange). Outcropping bedrock is mapped within the formations. Marine deposits are expected.

Ground and groundwater conditions

The full details of the ground conditions encountered are provided for on the exploratory records accompanying this report. The records provide descriptions, in accordance with BS 5930 (2015) and Eurocode 7, Geotechnical Investigation and Testing, Identification and classification of soils, Part 1, Identification and description (EN ISO 14688-1: 2002),– Identification and Classification of Soil, Part 2: Classification Principles (EN ISO 14688-2:2004) and Identification and Classification of Rock, Part 1: Identification & Description (EN ISO 14689-1:2004) of the materials encountered, *in situ* testing and details of the samples taken, together with any observations made during the ground investigation. The exploratory locations were carried out over water. No discussion on groundwater has been made.

Should you have any queries in relation to the data collected and presented, or the subsequent analysis; please do not hesitate to contact our office.

Yours sincerely,
For **Priority Geotechnical,**

James McSweeney BSc
Engineering Geologist

No responsibility or liability can be held by PGL for ground conditions between or extraneous to exploratory locations. The exploratory logs provide for ground profiles and configuration of strata relevant to the investigation depths achieved during the fieldworks. Caution shall be taken when extrapolating between such exploratory locations.

The interpretation of the current data set may be subject to change where additional data becomes available.

This report has been prepared for the Client and their Representative as outline, herein. The information should not be used without their prior written permission. PGL accepts no responsibility or liability for this document being used other than for the purposes for which it was intended.

Project Id:	P19188	Title:	Site Plan
Project Title:	Howth Fishing Harbour Centre Dredging	Scale:	1:3500
Location:	Howth Harbour, Co. Dublin	Engineer:	Malachy Walsh and Partners
Client:	Department of Agriculture, Food and the Marine	Contractor:	PGL

pgl priority geotechnical

Legend Key

- BH - BH
- GS - GS
- LB - LB
- RC - RC
- SP - SP

KEY TO SYMBOLS ON EXPLORATORY HOLE RECORDS

All linear dimensions are in metres or millimetres

DESCRIPTIONS

**	Drillers Description
Friable	Easily crumbled

SAMPLES

U( )	Undisturbed 102mm diameter sample, ( ) denotes number of blows to drive sampler
U( )F, U( )P	F- not recovered, P-partially recovered
U38	Undisturbed 38mm diameter sample
P(F), (P)	Piston sample - disturbed
B	Bulk sample - disturbed
D	Jar Sample - disturbed
W	Water Sample
CBR	California Bearing Ratio mould sample
ES	Chemical Sample for Contamination Analysis
SPTLS	Standard Penetration Test S lump sample from split sampler

CORE RECOVERY AND ROCK QUALITY

TCR	Total Core Recovery (% of Core Run)
SCR	Solid Core Recovery (length of core having at least one full diameter as % of core run)
RQD	Rock Quality Designation (length of solid core greater than 100mm as % of core run)

Where there is insufficient space for the TCR, SCR and RQD, the results may be found in the remarks column

If	Fracture Spacing in mm (Minimum/Average/Maximum) NI - non intact, NR - no recovery
AZCL	Assumed Zone of Core Loss
NI	Non intact

GROUNDWATER

▽	Groundwater strike
▼	Groundwater level after standing period
Date/Water	Date of shift (day/month)/Depth to water at end of previous shift shown above the date and depth to water at beginning of shift given below the date

INSITU TESTING

S	Standard Penetration Test - split barrel sampler
C	Standard Penetration Test - solid 60° cone
SW	Self Weight Penetration
Ivp, HVp (R)	In Situ Vane Test, Hand Vane Test (R) demonstrates remoulded strength
K(F), (C), (R), (P)	Permeability Test
HP	Hand Penetrometer Test

MEASURED PROPERTIES

N	Standard Penetration Test - blows required to drive 300mm after seating drive
x/y	Denotes x blows for y mm within the Standard Penetration Test
x*/y	Denotes x blows for y mm within the seating drive
c_u	Undrained Shear Strength (kN/m^2)
CBR	California Bearing Ratio

ROTARY DRILLING SIZES

Index Letter	Nominal Diameter (mm)	
	Borehole	Core
N	75	54
H	99	76
P	120	92
S	146	113

pgl priority geotechnical	**Priority Geotechnical Ltd.** **Tel: 021 4631600** **Fax: 021 4638690** **www.prioritygeotechnical.ie**	**Drilled By:** KM **Logged By:** SR	Borehole No. **RC201** Sheet 1 of 1

Project Name:	Howth Fishing Harbour Centre Dredging	**Project No.** P19188	**Co-ords:** 728218E - 739686N	**Hole Type** RC
Location:	Howth Harbour, Co. Dublin		**Level:** -2.34 m OD	**Scale** 1:50
Client:	Department of Agriculture, Food and the Marine		**Dates:** 11/12/2019	11/12/2019

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%) TCR	SCR	RQD	Depth (m) / FI (/m)	Level (mOD)	Legend	Stratum Description
		0.00 - 1.50 N=2 (1,0/0,0,1,1) (C)	B							Loose, grey brown, slightly gravelly SAND. Sand is fine to coarse, though mainly fine to medium. Gravel is medium to coarse and sub-angular.
		1.50 - 3.00 N=5 (1,2/1,1,2,1) (C)	B				1.50	-3.84		Loose, grey brown, slightly gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse and angular to sub-angular.
		N=49 (8,10/11,14,12,12) (C)					3.00	-5.34		Open hole boring. Driller described: Stiff, Clay with boulder content.
		~~0 (25 for 75mm/0~~ for 0mm) (C)					4.30	-6.64		Lithology: Strong, grey, LIMESTONE.
		4.30 - 5.30	30mm 120mm 50mm	100	60	0	10/m			Weathering: Slightly weathered, moderate to heavy clay smearing on fracture surfaces.
		5.30 - 6.30	30mm 180mm 90mm	100	75	29	8/m			Fractures: Heavily fractured with broken portions. 1st set dips 0 to 20 degrees, with close to medium spacing and undulate rough fracture surface textures. 2nd set dips 60 to 70 degrees, with medium to wide spacing and undulate rough fracture surface textures.
		6.30 - 7.10		80	10	0				*4.80m - 5.00m Not intact.* *5.10m - 5.30m Not intact* *6.05m - 7.00m Not intact*
		7.10 - 7.90	40mm 380mm 140mm	100	100	60	5/m			
							7.90	-10.24		End of Borehole at 7.900m

Groundwater:				
Struck (m bgl)	Level (m bgl)	After (min)	Sealed	Comment
				Drilled over water.

Hole Information:		
Hole Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
7.90	76	104

Equipment:	EMCI-450.
Method:	Compressed air mist.

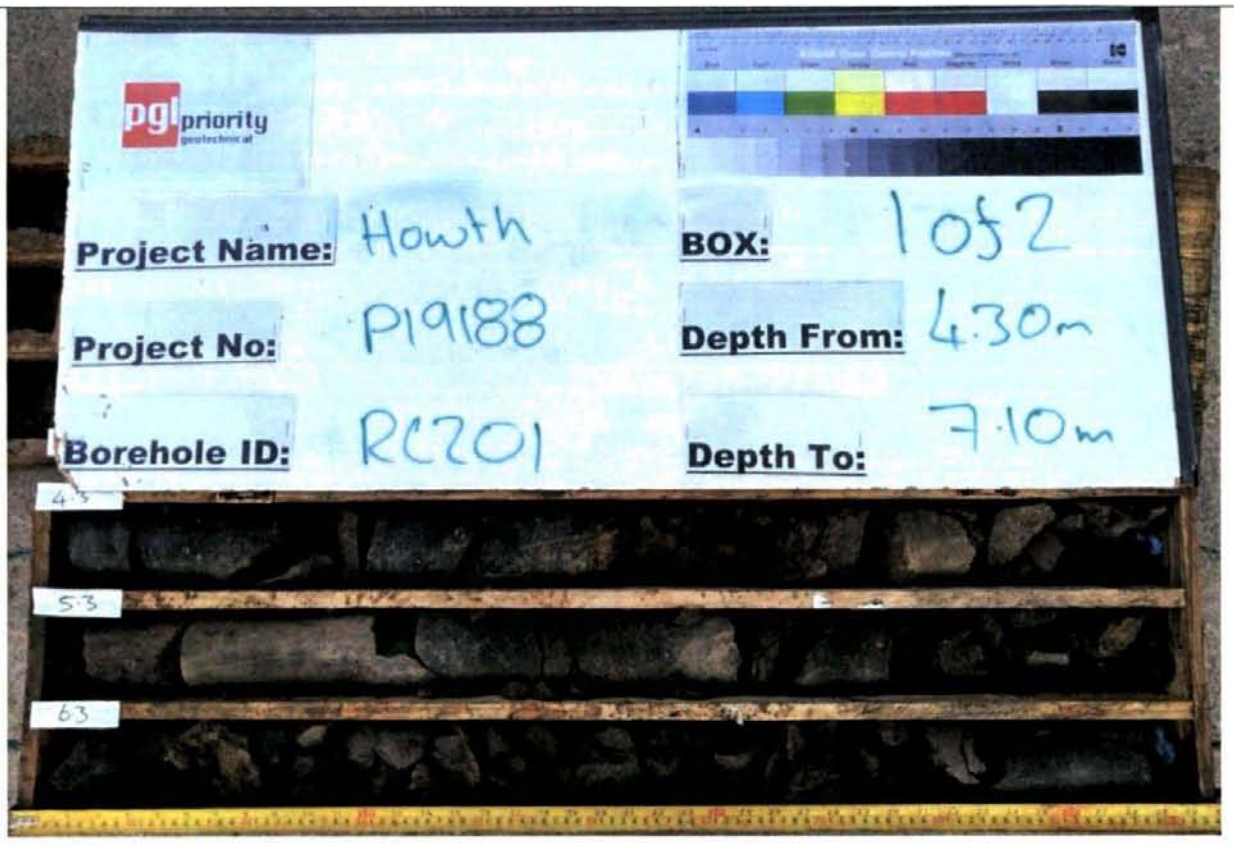
Remarks:

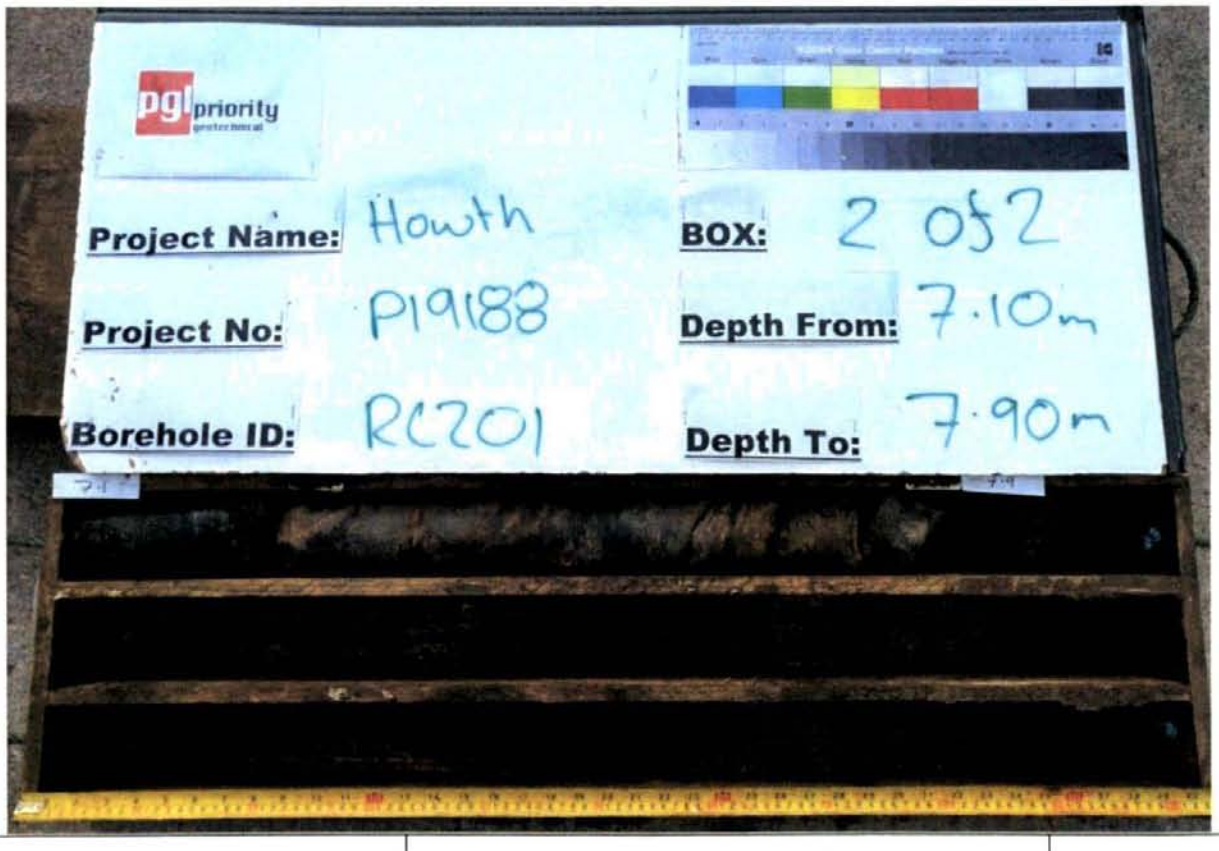
Borehole terminated at 7.90m below seabed level.

Shift Data:

Groundwater (m bgl)	Shift	Hole Depth (m bgl)	Remarks
	11/12/2019 08:00	0.00	Start of shift.
	11/12/2019 18:00	7.90	End of borehole.

Photographic Record





Number:	**RC201**	**Project**	Howth Fishing Harbour Centre
		Project No	P19188
		Engineer	Malachy Walsh & Partners

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Drilled By	Borehole No.
PC	**BH202**
Logged By	Sheet 1 of 1
SR	

Project Name:	Howth Fishing Harbour Centre Dredging	**Project No.** P19188	**Co-ords:**	728274E - 739735N	**Hole Type** CP
Location:	Howth Harbour, Co. Dublin		**Level:**	-3.09 m OD	**Scale** 1:50
Client:	Department of Agriculture, Food and the Marine		**Date:**	07/12/2019 - 07/12/2020	

Well Backfill	Water Strike (m bgl)	Sample and In Situ Testing			Depth (m bgl)	Level (mOD)	Legend	Stratum Description
		Depth (m bgl)	Type	Results				
		0.00 - 1.20	B					Brown, silty SAND. Sand is fine.
		1.20 1.20	B SPT (C)	N=17 (2,4/4,5,4,4)	1.20	-4.29		Medium dense, grey brown, slightly gravelly SAND. Sand is fine to coarse. Gravel is medium to coarse and angular to sub-angular.
					2.30	-5.39		Brown, slightly sandy slightly gravelly CLAY.
		2.70	SPT (C)	50 (25 for 10mm/50 for 40mm)	2.70	-5.79		End of Borehole at 2.700m

1 2 3 4 5 6 7 8 9

Groundwater:

Struck (m bgl)	Rose to (m bgl)	After (mins)	Sealed (m bgl)	Comment
				Drilled over water.

Hole Information:

Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
2.70	200	200

Equipment: Dando 2000.

Chiselling Details:

Top (m)	Base (m)	Duration (hh:mm)	Tool

Remarks:

Borehole terminated at 2.70m below seabed level due to refusal.

Shift Data:

GW (m bgl)	Shift	Depth (m bgl)	Remarks
	07/12/2019 08:00	0.00	Start of shift.
N/A	07/12/2019 18:00	2.70	End of bor