

Dún Laoghaire Rathdown County
Council

**Coliemore Harbour Permanent
Remedial Works**

Environmental Impact Assessment
Screening Report

Issue | 1 April 2022

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 274168-00




Ove Arup & Partners Ireland Ltd

Arup
One Albert Quay
Cork
T12 X8N6
Ireland
www.arup.com

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		Name	Elsie O’Gorman	Daniel Garvey	Ioannis Avgeris
		Signature			
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			Prepared by	Checked by	Approved by
		Name	Elsie O’Gorman	Daniel Garvey	Ioannis Avgeris
		Signature			
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1 Introduction

This report has been prepared on behalf of Dún Laoghaire Rathdown County Council to support the approval process for the proposed Coliemore Harbour permanent remediation works. The purpose of the report is to provide sufficient information to enable An Bord Pleanála to undertake screening of the proposed development to determine if an environmental impact assessment (EIA) is required to be undertaken.

The report has been prepared by Arup.

2 Background

Arup have been commissioned by Dún Laoghaire Rathdown County Council (DLRC) to undertake the design of the permanent remediation works of a pier walkway in Coliemore Harbour, Dalkey, Co. Dublin.

On the morning of August 13th, 2020, a localised collapse of the Granite Stone Bedrock supporting the footpath leading to the southern jetty in Coliemore Harbour occurred. A large section of the granite bedrock beneath the footpath sheared off and fell into the Harbour area, as shown in **Figure 2.1**. This led to the closure of access to the southern jetty and a restriction of access to the harbour due to concerns around the integrity of the bedrock.

Arup has undertaken several investigations and proposed conceptual solutions for the repair. Arup has provided an environmental desk study of the harbour to help the design team in the optioneering process to select both temporary and permanent repair measures that will minimise the environmental impact on the Harbour.

There is a public safety concern around the integrity of the bedrock in the area. The temporary works were put in place in June 2021 which included a temporary boardwalk (with structural support, timber decking and guard rails) and minor grouting of the walkway. The temporary solution was designed for minimal intrusion and rapid intervention. However, this is only a temporary solution, considering the nature of the incident, the permanent works are required to ensure the integrity of the bedrock in the area and protect public safety.

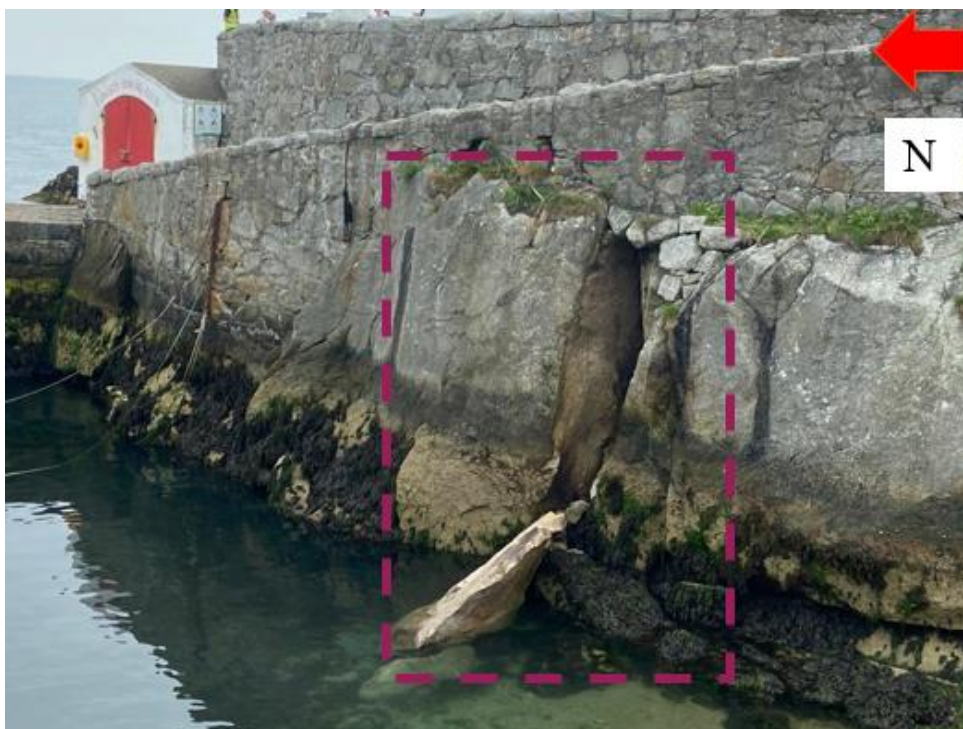


Figure 2.1: Coliemore Harbour Collapse

3 EIA Screening Legislative Context

3.1 Legislation and Guidance

The following legislation has been considered during the preparation of this environmental impact assessment (EIA) Screening Report:

- Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.
- Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

The obligations set out in the EIA Directive have been implemented into Irish law by the relevant provisions of the Planning and Development Act 2000 (as amended) (the 2000 Act) and the Planning and Development Regulations 2001 (as amended) (the Regulations). A review of this legislation was undertaken for the purpose of this EIA screening report.

3.2 EIA Directive

Article 4 of the EIA Directive (Council Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU), imposes the requirement for an EIA for the projects, to which the Article applies. These projects are listed in Annexes I and II of the Directive.

For Annex I projects, an EIA is mandatory. Member States must determine if an EIA is mandatory for Annex II projects. Member States must make the determination through (a) a case-by-case assessment or (b) thresholds or criteria set by the member State.

Articles 4(4) and 4(5) of the EIA Directive set out the requirements for EIA screening of Annex II projects. Annex IIA lists the information to be provided by the developer to the competent authority to enable it to screen projects. Annex III of the EIA Directive sets out the criteria to be examined when carrying out EIA screening.

3.3 Guidance and Methodology

The following guidance and consultation documents have been considered during the preparation of this report:

- Department of Housing, Planning, Community and Local Government (2018) *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018)*
- Department of the Environment, Heritage and Local Government (2003) *Environmental Effect Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development*

- European Commission (2017) *Guidance on EIA Screening*
- European Commission (2015) *Interpretation of definitions of project categories of annex I and II of the EIA Directive*
- Environmental Protection Agency (2017) *Revised Guidelines on the Information to be contained in Environmental Impact Statements (Draft August 2017)*
- Department of Housing, Planning, Community and Local Government (2017) *Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems*
- Department of Housing, Planning, Community and Local Government (2017) *Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive): Advice on the Administrative Provisions in Advance of Transposition.*

A desk study was undertaken to inform the description of the environmental baseline on Coliemore Harbour. Information on the proposed development, and its effects on the environment, were obtained from the Arup Design Team. The characterisation of effects, in terms of quality, significance, extent, probability and duration, was based on the EPA (2017) guidance.

The EC Guidance on EIA Screening (EC, 2017) provides a checklist to help users decide whether EIA is required based on the characteristics of a project and its environment. This screening checklist was used in the screening assessment.

3.4 European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) transpose the requirements of Directive 2014/52/EU, amending previous Directive 2011/52/EU, on the assessment of the effects of certain public and private projects on the environment (the EIA Directive) into planning law with effect from 1 September 2018.

Regard has also been had to the provisions of the Planning and Development Acts 2000, as amended, and the Planning and Development Regulations 2001, as amended, and as they apply now.

Section 172(1) of Part X of the Planning and Development Act 2000, as amended states:

(1) An environmental impact assessment shall be carried out by the planning authority or the Board, as the case may be, in respect of an application for consent for proposed development where either—

(a) the proposed development would be of a class specified in—

- (i) *Part 1 of Schedule 5 of the Planning and Development Regulations 2001, and either—*
 - (I) *such development would equal or exceed, as the case may be, any relevant quantity, area or other limit specified in that Part, or*
 - (II) *no quantity, area or other limit is specified in that Part in respect of the development concerned, or*
- (ii) *Part 2 of Schedule 5 of the Planning and Development Regulations 2001 and either—*
 - (I) *such development would equal or exceed, as the case may be, any relevant quantity, area or other limit specified in that Part, or*
 - (II) *no quantity, area or other limit is specified in that Part in respect of the development concerned, or*
- (b) (i) *the proposed development would be of a class specified in Part 2 of Schedule 5 of the Planning and Development Regulations 2001 but does not equal or exceed, as the case may be, the relevant quantity, area or other limit specified in that Part, and*
- (ii) *the planning authority or the Board, as the case may be, determines that the proposed development would be likely to have significant effects on the environment.]*

Section 5(1) of the Planning and Development Act 2000, as amended, provides that:

“If any question arises as to what, in any particular case, is or is not development or is or is not exempted development within the meaning of this Act, any person may, on payment of the prescribed fee, request in writing from the relevant planning authority a declaration on that question, and that person shall provide to the planning authority any information necessary to enable the authority to make its decision on the matter.”

3.5 Screening for EIA

3.5.1 Overview

This EIA Screening Report, to facilitate an assessment of the ‘likely significant effects’ of the proposed development, has been prepared in accordance with Annex IIA and Annex III of the EIA Directive and Schedule 7 and Schedule 7A of the Planning and Development (Amendment) Regulations 2001, as amended.

3.5.2 Requirements of the EIA Directive

Annex IIA of the EIA Directive outlines the information that is required from the developer to enable the competent authority to determine the need for an EIA. This is set out in Article 4(4) of the EIA Directive, which states that:

“Where Member States decide to require a determination for projects listed in Annex II, the developer shall provide information on the characteristics of the project and its likely significant effects on the environment. The detailed list of information to be provided is specified in Annex IIA.”

Annex III of the 2014 EIA Directive outlines criteria for determining whether a development is likely to have significant effects on the environment. This is set out in Article 5(5a) which states that:

“(a) where it is decided that an environmental impact assessment is required, state the main reasons for requiring such assessment with reference to the relevant criteria listed in Annex III; or

(b) where it is decided that an environmental impact assessment is not required, state the main reasons for not requiring such assessment with reference to the relevant criteria listed in Annex III, and, where proposed by the developer, state any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment.”

Discretion is given to member states in determining the need for an EIA, in respect of Annex II projects. As such, the relevant Irish legislation and associated guidance is pertinent for this EIA screening report, as detailed in Section 3.5.3 below.

3.5.3 Irish Guidance

The criteria outlined in Annex IIA of the EIA Directive (i.e., for determining the information that is required from the developer to enable the competent authority to determine the need for an EIA) have been transposed into Irish legislation through Schedule 7A of the Planning and Development (Amendment) Regulations 2001 – 2018. **Table 3.1** identifies the criteria outlined in Schedule 7A and demonstrates where these requirements have been addressed in this screening report.

Table 3.1: Criteria outlined in Schedule 7A of the Planning and Development (Amendment) Regulations 2001-2018

Schedule 7A requirements	Relevant section of this screening report
1. A description of the proposed development, including in particular: (a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works; and	Section 4.2

Schedule 7A requirements	Relevant section of this screening report
(b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	Section 4.2 and Section 4.3
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.	Section 4.3 and Section 4.4
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from: <ul style="list-style-type: none"> (a) the expected residues and emissions and the production of waste, where relevant; and (b) the use of natural resources, in particular soil, land, water and biodiversity. 	Section 4.4

The criteria outlined in Annex III of the EIA Directive, (i.e., for determining whether a development is likely to have significant effects on the environment) have been transposed into Irish legislation through Schedule 7 of the Planning and Development (Amendment) Regulations 2001-2018. **Table 3.2** identifies the criteria outlined in Schedule 7.

Table 3.2: Criteria outlined in Schedule 7 of the Planning and Development (Amendment) Regulations 2001-2018

Characteristics of proposed development
The characteristics of proposed development, in particular-
(a) the size and design of the whole of the proposed development,
(b) cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A) (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,
(c) the nature of any associated demolition works,
(d) the use of natural resources, in particular land, soil, water and biodiversity,
(e) the production of waste,
(f) pollution and nuisances,
(g) the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and
(h) the risks to human health (for example, due to water contamination or air pollution).
Location of proposed development
The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to—
(a) the existing and approved land use,
(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in

Characteristics of proposed development
the area and its underground,
(c) the absorption capacity of the natural environment, paying particular attention to the following areas: (i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment; (iii) mountain and forest areas; (iv) nature reserves and parks; (v) areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and; (vi) areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure; (vii) densely populated areas;
Type and characteristics of the potential impacts
The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of ‘environmental impact assessment report’ in section 171A of the Act, taking into account—
(a) the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),
(b) the nature of the impact,
(c) the transboundary nature of the impact,
(d) the intensity and complexity of the impact,
(e) the probability of the impact,
(f) the expected onset, duration, frequency and reversibility of the impact
(g) the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A) (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment, and
(h) the possibility of effectively reducing the impact.

For the purpose of this EIA Screening Report, the criteria outlined in Schedule 7 of the Planning and Development (Amendment) Regulations 2001 – 2018 are grouped under the following headings, which are individually addressed in the following sections:

- (i) Characteristics and location of proposed development (**Section 4.2**);
- (ii) Baseline environment (**Section 4.3**);
- (iii) Characteristics of potential effects (**Section 4.4**).

3.5.4 Requirement for Mandatory EIA

In accordance with Article 4 of the EIA Directive -

“Subject to Article 2(4), projects listed in Annex I shall be made subject to an assessment in accordance with Articles 5 to 10”

The prescribed classes of development and thresholds that trigger the need for an EIA are set out in Schedule 5 of the Planning and Development Regulations 2001, as amended.

A review of the classes of development listed under Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended, was therefore carried out to determine whether the proposed development falls into any of the development classes which require an EIA.

The prescribed classes of development and thresholds for Annex I projects that trigger a mandatory Environmental Impact Assessment (EIA) and the provision of an EIAR are set out in Schedule 5 Part 1 of the Planning and Development Regulations, 2001, as amended.

The proposed development does not relate to any of the development classes outlined in Part 1 of Schedule 5 and as such, there is no requirement to carry out a mandatory EIA.

3.5.5 EIA Screening for Sub-threshold EIA

In accordance with Article 4 of the EIA Directive -

“Subject to Article 2(4), for projects listed in Annex II, Member States shall determine whether the project shall be made subject to an assessment in accordance with Articles 5 to 10. Member States shall make that determination through

(a) a case-by-case examination; or

(b) thresholds or criteria set by the Member State.”

The prescribed classes of development and thresholds for Annex II projects that require screening for Environmental Impact Assessment (EIA) to determine the provision of an EIAR are set out in Schedule 5 Part 2 of the Planning and Development Regulations, 2001, as amended.

The classes under Schedule 5 Part 2 that are relevant to the proposed development are listed below:

Part 2 Class 10 Infrastructure Projects

(k) Coastal work to combat erosion and maritime works capable of altering the coast through the construction, for example, of dikes, moles, jetties and other sea defence works, where the length of coastline on which works would take place would exceed 1 kilometre, but excluding the maintenance and reconstruction of such works or works required for emergency purposes.

The length of coastline on which the works would take place at Coliemore Harbour is approximately 25m, well below the 1km threshold for mandatory EIA.

It can be considered that the remediation works required at Coliemore Harbour would be reconstruction of defence works (existing pier structure) and required for emergency purposes.

As such, the development would be excluded from mandatory EIA on both basis of “*reconstruction of such works*” and “*required for emergency purposes.*” Under these precedents, the 1km threshold does not need to be considered.

The requirement for sub-threshold EIA Screening was then considered. Sub-threshold development means development of a type set out in Part 2 of Schedule 5 of the Planning and Development Regulations which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development.

Where a project is of a specified type but does not meet, or exceed, the applicable threshold in Part 2 of Schedule 5, then the likelihood of the project having significant effects on the environment needs to be considered. The proposed development is considered to constitute the same type of development specified in Part 2 Class 10 (k).

In addition, the area is considered to be of high sensitivity as Coliemore Harbour is a Protected Structure, a high amenity area, and located in close proximity to a number of ecologically designated sites.

Thus, sub-threshold EIA screening is required to determine the potential for the proposed development to have significant effects on the environment.

Section 4 presents information on the proposed development in compliance with the requirements of Annex IIA and taking into account the requirements of Annex III.

The following sections provide the information required as per the criteria set out in Annex III to enable An Bord Pleanála to make an EIA screening determination as to whether an EIA is required for the proposed development. The characteristics and location of the proposed development are discussed in **Section 4.2**, the baseline environment is described in **Section 4.3** and the type and characteristics of the potential impacts are discussed in **Section 4.4**.

4 Description of the Proposed Development

4.1 Introduction

This section presents the information on the proposed Coliemore Harbour project and its likely significant effects on the environment to comply with the requirements of Annex IIA of the EIA Directive and Schedule 7A of the Planning and Development (Amendment) Regulations 2001-2018.

4.2 Characteristics and Location of Project

Dún Laoghaire Rathdown County Council (DLRCC) are submitting an application for consent for the proposed Coliemore Harbour permanent remedial works, the 'proposed development'.

4.2.1 Overview

The proposed development will comprise the permanent remedial works for Coliemore Harbour, with a design aim for minimum intrusion. This includes the grouting and infill works, rock anchoring dentition of the voids utilising up to 17 rock anchors and reinstatement of the walkway and parapet as per original. An overview of the proposed development is shown in **Figure 4.1**.

It is recognised that Coliemore Harbour is of major historic importance as it is a Protected Structure. There is also a number of recorded monuments in close proximity to the harbour. Dalkey where the harbour is situated is considered an Architectural Conservation Area (ACA), therefore, it is considered a sensitive landscape which must be accounted for prior to any works in the harbour.

The proposed development will provide a permanent solution to safeguard the integrity of the wall while ensuring minimum intrusion of the protected structure.

The proposed development will provide

- Grouting and rock anchoring dentition of the voids by installing rock anchors, to ensure the integrity of the structure;
- Sealing of the rock mass and stone masonry wall ensuring the exterior character of the structure is maintained to avoid negatively impacting the ACA; and
- The resurfacing and reinstatement of the existing walkway and parapet to its original condition, for safe use.

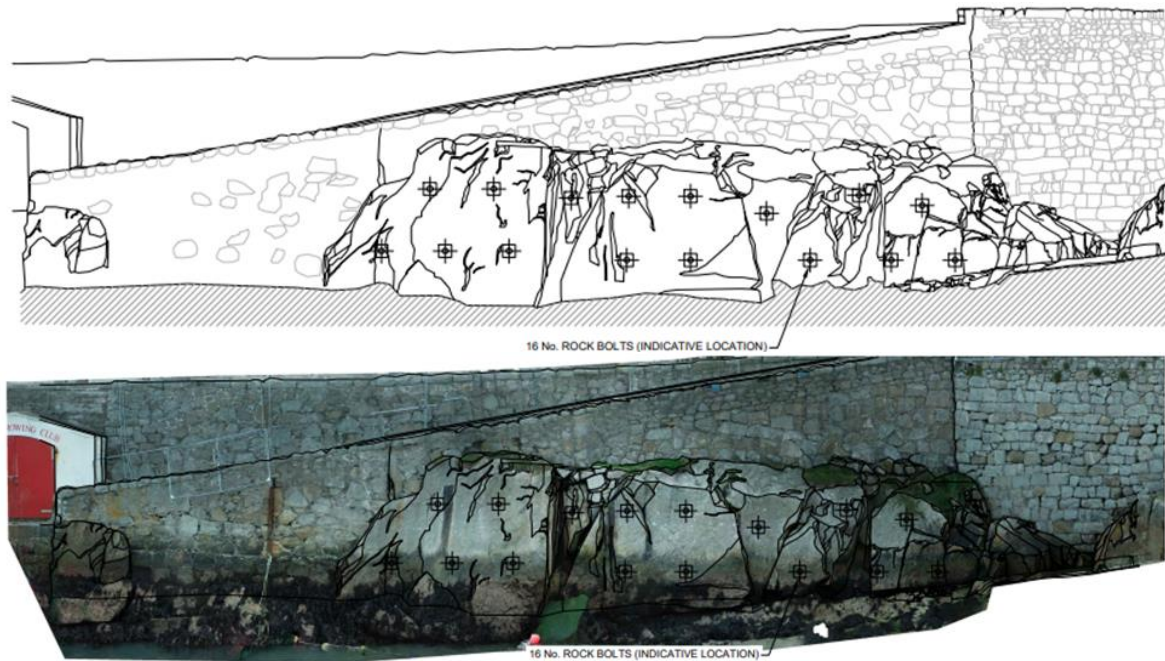


Figure 4.1: Overview of the Proposed Development | not to scale

4.2.2 Site Location and Context

Coliemore Harbour is located c. 800m to the south-east of Dalkey village. The site covers the footpath on north wall and the viewing platform on the south-western side of the harbour, as shown in **Figure 4.2**.

The construction of Coliemore Harbour with its two piers was completed in 1869. There are signs along Coliemore Road of old quarries that may have serviced this harbour construction. The topography of the area lies between 0-10mOD, falling towards the sea. The footpath slopes upwards from an elevation of 2.5mOD in the south-east to 7.8mOD in the north-west, while the elevation of the platform ranges from c. 6.3 to 8mOD.

The structures of the Coliemore Harbour and the adjacent area are made up of the following: viewing platform; viewing platform south wall; footpath south wall; footpath north wall; west wall; south pier; north pier; approach to north pier; lower north wall; upper north wall; east wall and the slipway.

There is an amount of vegetation growing from the west wall, particularly towards the northern end and further up the slip. A toilet has been constructed in this wall towards the upper northern end. There is very little vegetation growing on the lower north wall. The south pier's primary function is to provide shelter to the harbour and to facilitate pedestrian access to the water via a set of access steps. A large number of the pier users are sight seers (not familiar with hazards of wave overtopping and open quaysides).

Vegetation can weaken and breakup mortar pointing in the joints making it more susceptible to weathering and other erosive forces. In addition, it can give rise to forces on the masonry units themselves.

Coliemore Harbour is an important public amenity for the local and regional population. The harbour contributes to a significant and diverse range of activities both commercial and recreational. These activities include inshore boat hire, inshore fishing, scuba diving, kayaking, the provision of ferry services to Dalkey Island as well as casual visitation.



Figure 4.2: Location of Coliemore Harbour | not to scale

4.2.3 Description of Works

This section provides a description of the works associated with the proposed development which will consist of a number of elements as described below.

4.2.3.1 Site Preparation

The temporary walkway will be removed, prior to works commencing. Two granite bollards will be removed from the viewing platform for accessibility. The laydown and works area will be secured.

4.2.3.2 Pointing

This initial step seals the stone masonry wall as much as possible with the aim of limiting grout or water leaking from the masonry wall during the compensation grouting. After cleaning, the operative will apply lime mortar to the small joints in the masonry wall using a trowel. The access arrangements will be via crane and man basket throughout the works.

4.2.3.3 Compensation Grouting

This secondary step fills the voids behind the rock face prior to rock anchor installation. Vertical holes will be drilled and injected with grout. Where larger voids are found sand filler will be used within the grout. Grout injection will be carried out from the existing tarmac walkway.

4.2.3.4 Boring to Depth

Bore holes are drilled into the rock face through rotary percussive drilling. This process uses air flushing to target depth to avoid spoil contaminating the surrounding environment / harbour water. The drilling rig is set up over the pin position by positioning the drilling head directly above setup position. Hollow stem rods are inserted into the bore holes.

4.2.3.5 Grouting of Pile

Grout is pumped through a perforated pipe when drilling is completed. The bottom of walkway will be bunded to catch any flowing grout which escapes the top of the bores. Rods will be withdrawn from position at each location.

4.2.3.6 Installation of Rock Anchors

The purpose of this step is to install tie-back anchors which keep the rock mass in place for the design life duration.

A hole will be cored within the granite rock face to enable the headplate and rock anchor to be recessed flush to the rock face. A cradle-mounted drill will be used to install the inclined anchors. The objective is to bore to depth by means of a rotary percussive drilling head using a compressed air as a flush for the bored materials and then to fill the resultant hole with grout and reinforcement.

Grouting of rock anchors will be via standard procedure using natural hydraulic lime mortar mix or a 'prompt' mix which is a fast-setting mix to ensure the works set before high waters. Alternatively, a dry grout/resin capsule bored in with a drill rod which is activated during drilling, will be used. It is likely the standard procedure will be used and is considered the worst-case option in terms of potential for grout leak/spill.

Once the headplate is installed, a grey olive metal ring will be welded to the top of the bar.

4.2.3.7 Restoration and Reinstatement

The loose piece of granite has been removed from the harbour. The exterior character of the rock mass will be maintained. The existing walkway will be resurfaced and reinstated to its original condition for safe use after the works have been completed.

4.2.3.8 Duration

The construction works are expected to commence in Q4 2022 for a duration of 8 weeks. Public access to the Coliemore Harbour viewing platform will be closed for the duration of the works.

4.3 Baseline Environment

This section identifies the environmental sensitivities and describes the aspects of the environment with the potential to be significantly affected by the project.

4.3.1 Land Use and Surrounding Area

Coliemore Harbour is located in an urban area with a large number of residential developments and a variety of amenities and commercial developments in the immediate vicinity.

There are many residential developments close to Coliemore Harbour. The closest residential developments include houses along the opposite side of Coliemore Road approximately 40m from the affected wall of the harbour. Most of the developments within the immediate proximity to the harbour are residential. There is an apartment complex, the 'Coliemore Apartments,' to the north of the harbour approximately 80m from the affected wall. There is a small store house / club house for the Dalkey Rowing club located onto the Southern Pier.

The Dalkey Rowing Club is located approximately 20m from Coliemore Harbour to the immediate south of the affected wall. There is a school, 'Tiggy's Art School,' located approximately 100m to the west of Coliemore Harbour off Green Road. There is a special needs facility, 'Special Needs FUN Centre,' located approximately 220m north of the harbour on Victoria Road. There is a large sports complex located approximately 500m north of the harbour. Dalkey town centre is located approximately 850m north-west of Coliemore Harbour, in which a large number of commercial developments are located.

There are many casual visitors, tourism and recreational activities taking place at the harbour particularly during the Spring, Summer and Autumn months. The Marine Survey Office at the Department of Transport granted a licence in 2014 for a new ferry service to Dalkey Island.

The harbour is used by small leisure crafts which use the slipway to access the water at this location. In addition, there are some crafts which have to use this harbour as an access point for Dalkey Island. Existing crafts using the harbour are relatively small and are capable of accessing the water via the existing slipway. The existing slip way is constructed of varying materials and there is much algae and marine growth thereon.

The fishing industry in Dún Laoghaire Rathdown relates not only to commercial fishing (at sea and inland) but also to tourism and recreational activities. The harbours provide fishing year-round.

Other activities which attract tourism include boat hire, yachting, adventure sports, pier/shore angling, sea angling, dolphin and bird watching, hiking, visiting heritage sites and festivals. Dublin Bay Cruises also sail from Dún Laoghaire-Rathdown to Howth daily during the summer months.

The Dun Laoghaire Rathdown County Development Plan 2016-2022 identified Coliemore Harbour and the surrounding lands as zoned for ‘*Existing Residential*’ with the objective of this zone to ‘*protect and/or improve residential amenity,*’ as shown in **Figure 4.3**.

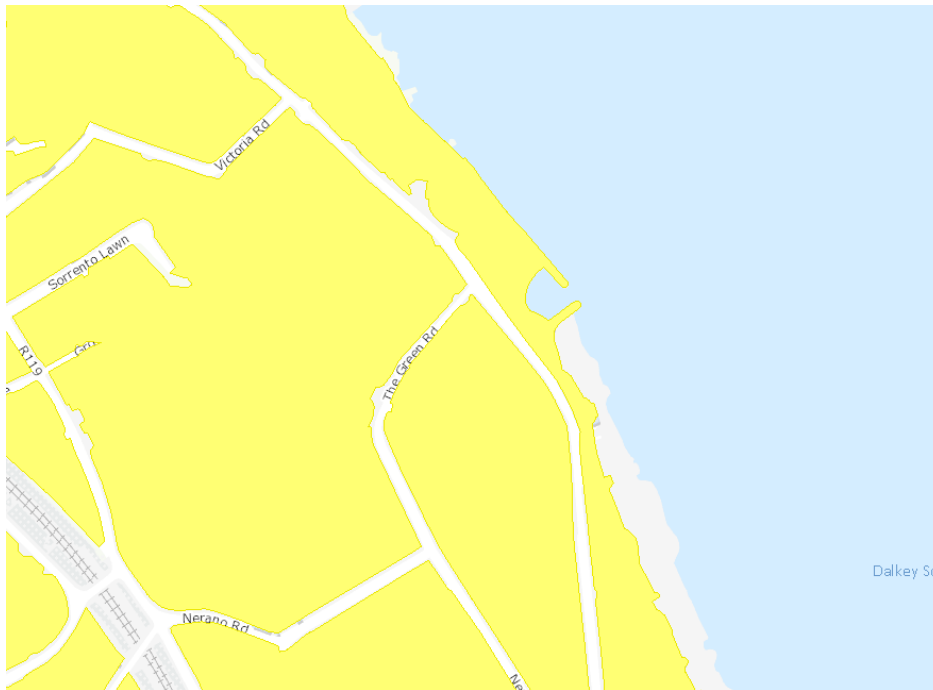


Figure 4.3: Land Use Zoning Coliemore Harbour (Source: myplan.ie)

4.3.2 Biodiversity

Dún Laoghaire-Rathdown supports a variety of natural and semi-natural habitats and a wide range of plant and animal species, which have come under threat due to development pressures and increased demand for new development land.

The County’s coastline, including areas such as South Dublin Bay and the Dalkey Coastal Zone, provides a number of habitats for a variety of species. Dún Laoghaire-Rathdown has a number of nationally and internationally important areas of natural heritage. The most important of these sites have been designated under EU legislation.

The potential impacts to designated sites from the proposed development are assessed in detail in the Natura Impact Statement Report which accompanies this application. This section gives an outline of the baseline conditions and the closest designated sites.

4.3.2.1 Designated Sites

Special Areas of Conservation (SACs) are designated sites that are recognised for their ecological value at a European level under the EU Habitats Directive (1992/43/EEC). Special Protection Areas (SPAs) are designated areas of habitat for the protection of endangered species of wild birds and Ireland is obliged under the EU Birds Directive (2009/147/EC) to designate such habitats. Both EU Directives were transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations (S.I. No. 477 of 2011). SPA and SAC sites are referred to as ‘Natura 2000’ sites.

Natural Heritage Areas (NHAs) are sites which have been designated by the Irish Government on a statutory basis under the Wildlife Amendment Act (2000) and are legally protected from damage from the date they are formally proposed as a designation.

Proposed Natural Heritage Areas (pNHA) are sites which have been designated by the Irish Government on a non-statutory basis and are subject to limited protection and their ecological value is recognised by Planning and Licensing Authorities.

The ecological designated sites within 1 kilometre of Coliemore Harbour are outlined in **Table 4.1** below.

Table 4.1: Ecological designated sites within 1km of the study site. Source NPWS.

SAC Site Name	Site Code	Distance (m)
Rockabill to Dalkey Island SAC	003000	183
SPA Site Name	Site Code	Distance (m)
Dalkey Islands SPA	004172	93
NHA Site Name	Site Code	Distance (m)
Dalkey Coastal Zone and Killiney Hill pNHA	001206	Overlaps

There are three ecological sensitive sites within 1km of Coliemore Harbour. These sites are shown in **Figure 4.4** and described in more detail below.

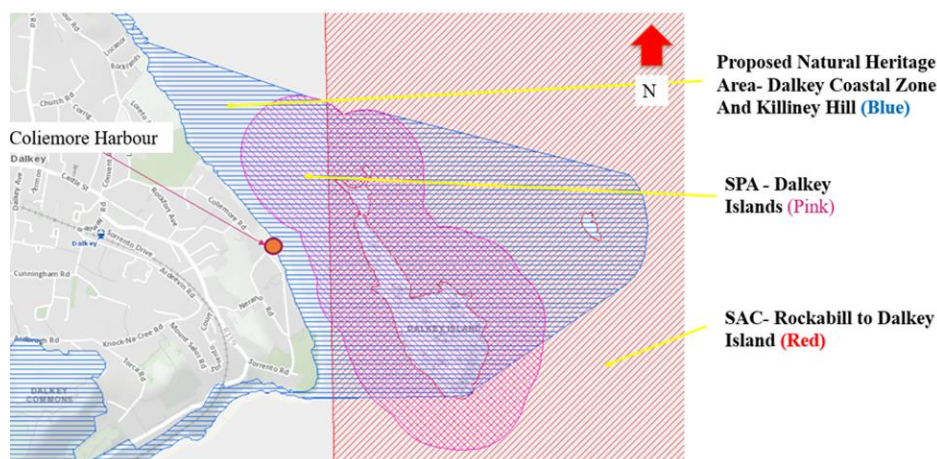


Figure 4.4: Location of designated sites in proximity to Coliemore Harbour

The proposed development is also hydrologically connected to European sites in Dublin Bay, including South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, Howth Head Coast SPA, Baldoyle SPA and Ireland's Eye SPA. There is potential that populations of special conservation interests (SCI) and/or qualifying interest (QI) species of other European sites use Dublin Bay and its habitats for foraging, commuting and/or roosting, including Malahide Estuary SPA, The Murrough SPA, Lambay Island SAC, Lambay Island SPA and Rogerstown Estuary SPA.

Dalkey Islands SPA

The Dalkey Islands SPA is located approximately 93m east of Coliemore Harbour offshore. The site comprises Dalkey Island, Lamb Island, Maiden Rock, the intervening rocks and reefs between Dalkey Island, Lamb Island and Clare Rock, and the sea area around Maiden Rock to a distance of 100m.

Dalkey Island, which is the largest in the group, lies c. 400m off Sorrento Point and is separated by a deep channel. The island is low-lying, the highest point at c.15m is marked by a Martello Tower. Soil cover consists mainly of thin peaty layers, though in a few places there are boulder clay deposits.

Vegetation cover is low growing, consisting mainly of grasses. Dense patches of Bracken (*Pteridium aquilinum*) and Hogweed (*Heracleum sphondylium*) occur in places. Dalkey Island is grazed by a herd of feral goats. Lamb Island lies to the north of Dalkey Island, attached at low-tide by a rocky reef. It has thin soil cover and some vegetation, mainly of grasses, Nettles (*Urtica dioica*) and Hogweed. Further north lies Maidens Rock, a bare angular granite rock up to 5m high. There is no vegetation cover.

The site is of importance for both breeding and staging Sterna terns. There is a well-established colony of Arctic Tern (*Sterna paradisaea*) as well as Common Tern (*Sterna hirundo*). Roseate Tern (*Sterna dougallii*) bred in 2003 and 2004, one of only three known sites in the country - this came about after several years of conservation management aimed at attracting the species. The site along with other parts of south Dublin Bay is used by the three Sterna tern species as a major post-breeding/pre-migration autumn roost area. The Dalkey Tern colony is largely comprised of Arctic Terns. Birds are present from about late-July to September, with c. 2,000 terns, comprising individuals of all three species. The origin of the birds is likely to be the Co. Dublin breeding sites (Rockabill and Dublin Docks) though the numbers recorded suggests that birds from other sites, perhaps outside the state, are also present. BirdWatch Ireland (BWI) manage the Tern colony on the Dalkey Islands as part of the 'Dalkey Tern Conservation Project.'

The site also has breeding Great Black-backed Gull (*Larus marinus*), Shelduck (*Tadorna tadorna*) and Oystercatcher (*Haematopus ostralegus*). The site is known to be frequented in winter by Turnstone (*Calidris maritima*) and Purple Sandpiper (*Arenaria interpres*) but recent count data are not available.

Dalkey Coastal Zone and Killiney Hill pNHA

Dalkey Coastal Zone and Killiney Hill pNHA stretches from Scotsman's Bay to south of White Rock at Killiney Beach. It includes the Dalkey Island group and Dalkey Sound, before extending inland to encompass Killiney Hill. The site is valuable for its marine and coastal elements, as well as the terrestrial habitats of heath, grasslands, mixed woodlands and exposed rocks that occur on Killiney Hill and the islands.

The pNHA site overlaps with Coliemore Harbour representing a coastal system with habitats ranging from the sub-littoral to coastal heath. The flora is well developed and includes some scarce species including clovers, Wild Madder (*Rubia peregrina*), Bloody Cranesbill (*Geranium sanguineum*) and Bee Orchid (*Ophrys apifera*).

Dalkey Sound, which lies between the island and the mainland directly east of Coliemore Harbour, is noteworthy for the occurrence of many coastal invertebrate species. These species include squat lobsters (*Galathea*), swimming crabs (*Portunus*) and crawfish (*Palinurus vulgaris*) as well as rare European species of the Order *Nudibranchia* and the Spiny Starfish (*Marthasterias glacialis*).

The islands are important bird sites and are known nesting and roosting areas for many species as outlined previously.

Rockabill to Dalkey Island SAC

The Rockabill to Dalkey Island SAC, located approximately 183m from Coliemore Harbour, forms a strip of dynamic inshore and coastal waters in the western Irish Sea, extending approximately 40 km in length. The SAC site encompasses a range of comparatively shallow marine habitats, including diverse seabed structures, reefs, islets and islands. It borders existing designated sites (those previously outlined) and is adjacent to a wide array of coastal features, e.g., mudflats, lagoons, estuaries, coastal cliffs and sea caves.

Extending east from Dublin Bay towards the offshore Kish Bank, the site contains the entire Burford Bank, a sedimentary seabed structure (i.e., fine sand) at the mouth of Dublin Bay, that on its north side is flanked by gravel and coarse sand deposits. The site also contains the northern segment of the Frazer Bank (i.e., fine sand) off Dalkey Island and Killiney Bay. Reef habitats within the site occur at Dalkey Island, Maiden Rock and Muglins in the southern portion, off Howth Head, Ireland's Eye and Lambay Island in the central portion, and Rockabill in North Dublin.

The area selected for designation represents a key habitat for the Annex II species - harbour porpoise (*phocoena phocoena*), within the Irish Sea. Population survey data shows that porpoise occurrence within the SAC site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e., calves) are observed at favourable, typical reference values for the species. There is a wide array of habitats believed to be important for harbour porpoise including inshore shallow sand, mud-banks and rocky reefs scoured by strong current flow.

Surveys carried out by the NPWS in the summer of 2016 within the SAC showed a high density of harbour porpoise with abundance ranging from 374 individuals to 511 individuals, which is consistent with data from similar surveys carried out in 2013.

The SAC site also contains two Annex II seal species – Harbour seal (*Phoca vitulina vitulina*), Grey seal (*Halichoerus grypus*) for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenose dolphin (*Tursiops truncatus*) have also occasionally been recorded in the area. Along the eastern seaboard the Reef habitat type is uncommon due to prevailing geology and hydrographical conditions.

Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. A detailed survey of selected suitable islands has shown areas with typical biodiversity for this habitat both intertidally and subtidally. These Reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms.

4.3.2.2 Other Designated Sites

The proposed development is also hydrologically connected to European sites in Dublin Bay, including South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, Howth Head Coast SPA, Baldoyle SPA and Ireland's Eye SPA. There is potential that populations of SCI and/or QI species of other European sites use Dublin Bay and its habitats for foraging, commuting and/or roosting, including Malahide Estuary SPA, The Murrough SPA, Lambay Island SAC, Lambay Island SPA and Rogerstown Estuary SPA.

Howth Head SAC and Bray Head SAC are both present in the vicinity of the proposed development, however, the QI habitats for which these sites have been designated are terrestrial habitats above the high tide line.

The South Dublin Bay SAC is an intertidal site that is characterised by extensive areas of sand and mudflats. There are small sandy beaches in Poolbeg, Irishtown and Merrion/Boosterstown. There is evidence of incipient dune formation in areas, notably the seaward side of Boosterstown marsh, which is of recent origin. The site is designated for the mudflats and sandflats not covered by seawater at low tide. South Dublin Bay is also part of the more extensive South Dublin Bay and River Tolka Estuary SPA.

The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dún Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Boosterstown Marsh. A portion of the shallow marine waters of the bay is also included. The site is an important site for wintering waterfowl, being an integral part of the wider Dublin Bay complex.

The Special Conservation Interests for the site include 13 Annex I Bird Species, namely; Light-bellied Brent Goose (*Branta bernicla hrota*); Oystercatcher (*Haematopus ostralegus*); Ringed Plover (*Charadrius hiaticula*); Grey Plover (*Pluvialis squatarola*); Knot (*Calidris canutus*); Sanderling (*Calidris alba*); Dunlin (*Calidris alpina*); Bar-tailed Godwit (*Limosa lapponica*); Redshank (*Tringa totanus*); Blackheaded Gull (*Chroicocephalus ridibundus*); Roseate Tern (*Sterna dougallii*); Common Tern (*Sterna hirundo*); Arctic Tern (*Sterna paradisaea*). The SPA also contains one Annex I habitat namely *Wetlands and Waterbirds*.

4.3.2.3 Habitats and Species

The proposed development site is located in a coastal setting in Coliemore Harbour, with urban residential areas to the north, west and south, and the Irish Sea to the east. A field survey was undertaken by Scott Cawley Ltd. for the purposes of the Ecological Impact Assessment (which accompanies this application).

Flora and Fauna Species

The Natura Impact Statement identifies the following Annex I and Annex II which are designated within c.100m of the development site:

- Common Porpoise (*Phocoena phocoena*)
- Arctic Tern (*Sterna paradisaea*)
- Common Tern (*Sterna hirundo*)
- Sandwich Tern (*Thalasseus sandvicensis*)
- Roseate Tern (*Sterna dougallii*)

The Natura Impact Statement identifies the following Annex I and Annex II species for which European sites which are designated within c. 2km of the development site:

- Harbour Porpoise (*Phocoena phocoena*)
- Bottle-nosed dolphin (*Tursops truncates*)
- Common seal (*Phoca vitulina*)
- Grey seal (*Halichoerus grypus*)
- Otter (*Lutra lutra*)
- Peregrine Falcon (*Falco peregrinus*)
- Arctic Tern (*Sterna paradisaea*)
- Common Tern (*Sterna hirundo*)
- Dunlin (*Calidris aplina*)
- Red Throated Diver (*Gavia stellata*)
- Sandwich Tern (*Thalasseus sandvicensis*)

- Roseate Tern (*Sterna dougallii*)

Marine Mammals

There are records for four Annex II marine mammal species within c. 2km of the proposed development site: bottle-nosed dolphin (*Tursops truncates*), harbour porpoise (*Phocoena phocoena*), common seal (*Phoca vitulina*) and grey seal (*Halichoerus grypus*). As part of the consultation process for the proposed development Arup consulted with the Irish Whale and Dolphin Group (IWDG). The IWDG have previously surveyed the area surrounding Coliemore Harbour and have confirmed records of harbour porpoise near the entrance of the harbour but not within it. The nearest European site designated for harbour porpoise is Rockabill to Dalkey Island SAC, located c. 183m east at its closest point, and the nearest European sites designated for the seal species is Lambay Island SAC, located c. 23.5km north. Given the nearby sites designated for marine mammals, and the habitats in the vicinity of Coliemore Harbour, the IWDG have advised to assume the occasional usage of the harbour by both seal species and harbour porpoise. All European sites designated for bottle-nosed dolphin in Ireland are located on the west coast. Therefore, it is not considered that bottle-nosed dolphins present in the vicinity of the proposed development site are associated with any European site.

Otter

There are records of otter (*Lutra lutra*), an Annex II and IV species within c. 2km of the proposed development site. DLRCC have advised that there are recent records of otter holts along the coastline, approximately 1-1.5km north of Coliemore Harbour. Although the otter holts are not located within the harbour itself, Coliemore Harbour is likely to be within the foraging range of these otter. The nearest European site designated for otter is Wicklow Mountains SAC, located c. 12km from the proposed development site (as the crow flies). The Wicklow Mountains SAC is hydrologically connected to Dublin Bay and the Irish Sea via a network of rivers. The closest river with hydrological connectivity to the Wicklow Mountains SAC is the Glencullen River which flows into Bray Harbour via the River Dargle. The outfall of the River Dargle in Bray Harbour is located approximately c. 12.7km downstream of the Wicklow Mountains SAC (measured along the length of the river), and Bray Harbour is located c. 8.2km south of Coliemore Harbour (measured along the coastline). Therefore, the Wicklow Mountains SAC is located c. 20.9km from the proposed development site, via habitats suitable to support otter.

Birds

There are records of seven SCI bird species within c. 2km of the proposed development site. The waters in and around Coliemore Harbour are considered to be suitable to support feeding and loafing SCI waterbirds. Additionally, rocky shorelines in the vicinity of Coliemore Harbour are suitable to support SCI waders. The NPWS carried out a survey of Coliemore Harbour in 2015 in which they surveyed the area for Black Guillemot (*Cepphus grille*) – a highly marine bird only found on land during the breeding season in Spring.

The findings of this survey concluded that there were approximately 6-7 pairs of Black Guillemot found within Coliemore Harbour, nesting within drainage pipes along the north wall.

There were records of peregrine (*Falco peregrinus*) returned from a desk study. The habitats in the proposed development site offer no suitable nesting sites for peregrine, and limited hunting opportunities due to the small size of the harbour. The nearest SPA designated for this species is Wicklow Mountains SPA, which is located c. 12km south-west of the proposed development site.

Dalkey Islands SPA, located c. 93m to the east of the site, is designated for roseate tern (*Sterna dougallii*), common tern (*Sterna hirundo*) and Arctic tern (*Sterna paradisea*). The Dalkey Islands are important for breeding and staging terns, and there is a well-established colony of common tern and smaller numbers of Arctic tern present. Roseate tern have bred on Dalkey Island in the past (in 2003 and 2004). Dalkey Islands SPA is used by the three tern species as a post-breeding/pre-migration autumn roost area. Nesting tern colonies in Ireland are largely confined to offshore islands where predator populations (such as rats) are actively managed. There is no suitable shingle habitat for nesting terns within Coliemore Harbour or the surrounding area on the mainland. However, the open marine environment adjacent to Coliemore Harbour is likely to support foraging terns during their breeding and pre-migration seasons (May-September).

Bats

There are records for bat species within c. 2km of the proposed development including Leisler's bat (*Nyctalus leisleri*); Common pipistrelle bat (*Pipistrellus pipistrellus*); Soprano pipistrelle (*Pipistrellus pygmaeus*). However, the proposed development site are of negligible suitability for foraging bats due to lack of vegetation that would attract their prey (insects). Therefore, the proposed development site is considered unsuitable for roosting bats. However, cracks in the pier walls, and boat sheds in the wider Coliemore Harbour area could represent suitable roosting habitat for bats. It is also possible that bats commute and forage in the vicinity of the proposed development site.

Fish

There are records of 29 fish species within c. 2km of the proposed development site. A full list of these species is not provided as they are not considered to be of conservation concern, nonetheless, the local fish populations in the coastal waters adjacent to Coliemore Harbour support otter, marine mammal and bird populations, and are as such of local ecological importance.

Flora

The desktop study did not find records for any Annex II flora within c. 2km of the proposed development. The field survey undertaken in 2022 at the proposed development site did not record any rare and/or protected flora within Coliemore Harbour, and considering the habitats found within the proposed development site, there is no suitable habitat for the rare and/or protected flora.

No non-native invasive flora listed on the Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended)* were recorded within the proposed development site during the survey in 2022.

4.3.3 Archaeology, Architecture and Cultural Heritage

The potential impacts to archaeology, architecture and cultural heritage from the proposed development are assessed in detail in the Architectural Heritage Impact Assessment report which accompanies this application. This section gives an outline of the baseline conditions.

Heritage, by definition, means inherited properties, inherited characteristics and anything transmitted by past ages and ancestors. It covers everything, from objects and buildings to the environment. Archaeology is the study of past societies through the material remains left by those societies and the evidence of their environment. Archaeological heritage consists of such material remains (whether in the form of sites and monuments or artefacts in the sense of moveable objects) and environmental evidence. The National Monuments Service (archaeology.ie) and the Dun Laoghaire Rathdown County Development Plan were consulted for schedules of Protected Structures and Archaeological Conservation Areas (ACAs).

Dún Laoghaire-Rathdown's archaeological heritage is protected under the National Monuments Acts (1930-2004), Natural Cultural Institutions Act 1997 and the Planning Acts. The Planning and Development Act, 2000, requires all Planning Authorities to keep a "Record of Protected Structures" ("RPS"), with all structures listed for protection in current Development Plans considered 'protected structures'. The Record of Monuments and Places (RMP) is an inventory, put on a statutory basis by amendment to the National Monuments Act 1994, of sites and areas of archaeological significance. Coliemore Harbour is a Protected Structure (RPS Number: 1898) but is not a recorded monument.

An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of a Protected Structure. Dalkey, the town in which Coliemore Harbour is situated, is considered an ACA.

There are recorded archaeological monuments or National Monuments within c. 500m of Coliemore Harbour. There is a Historic Well located approximately 450m north of the harbour near the football pitch at Loreto Convent Lane overlooking the coastline (DU023-024). There are a large number recorded on Dalkey Island some of which are approximately 500m east of Coliemore Harbour. These monuments include a Promontory Fort (DU023-029001) located in the north-west corner of Dalkey Island; a Holy Well (DU023-029004) also located in the north-west of Dalkey Island; two large shell Midden's (DU023-029002) that were revealed during excavations in the interior of the promontory fort (DU023-029001-) at Dalkey Island in the mid-1950s. There are many other monuments recorded further inland on Dalkey Island.

4.3.4 Air Quality

Coliemore Harbour is located in an urban area with a wide variety of amenities and residential developments within the immediate vicinity. The baseline environment is already well developed with busy road traffic.

There are a high number of sensitive receptors within the locality in the form of residential developments, schools, commercial developments, a special needs facility and amenity areas, as outlined in **Section 4.3.1**.

These receptors are already exposed to urban air quality consistent with the level of development, yet still remaining comfortably within EPA standards.

The three closest air quality monitoring sites to Coliemore Harbour are; Glenageary Road in Dún Laoghaire which measures oxides of nitrogen; the EPA Inspectorate, Richview, Clonskeagh which monitors ozone levels; and Rosemount, Dublin which monitors for metal concentrations including lead, nickel, arsenic and cadmium. These sites have recorded a 'Good' status for all pollutants used in *Air Quality Index for Health* (AQIH) calculations.

4.3.5 Noise and Vibration

There are a high number of sensitive receptors within the locality in the form of residential developments, schools, commercial developments, a special needs facility and amenity areas, as outlined in **Section 4.3.1**. These receptors are already exposed to urban noise consistent with the level of development in the area.

There are some busy, local roads located in close proximity to the harbour, including Coliemore Road and Green Road, which are likely to generate moderate-high levels of noise close to the harbour, however there is no noise data provided for these roads. The high amenity, busy nature of the area is likely to generate considerable levels of noise close to the harbour.

4.3.6 Water Quality

Dún Laoghaire-Rathdown includes parts of three Water Management Units (WMUs): the Dargle; the Dodder; and Shanganagh.

The Zone of Influence with respect to water resources can be estimated to be all WMUs either wholly within or partially within the County, connected WMUs, connected estuarine and coastal water bodies and all connecting bodies of groundwater. There are no designated shellfish areas in the vicinity of the site.

The WFD defines 'surface water status' as the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status. Therefore, to achieve 'good surface water status' both the ecological status and the chemical status of a surface water body need to be at least 'good'.

The ecological status is an expression of the condition of aquatic ecosystems associated with surface waters. Such waters are classified as of ‘good ecological status’ when they meet Directive requirements.

The chemical status is a pass/fail assignment with a failure defined by a face-value exceedance of an Environmental Quality Standards (EQS) for one or more Priority Action Substances (PAS) listed in Annex X of the Water Framework Directive (WFD). The EQS values for individual PAS substances are set at European level. Good surface water chemical status means that concentrations of pollutants in the water body do not exceed the environmental limit values specified in the Directive.

The nearest watercourse to the proposed development site is the Kill-O-The-Grange Stream, which outfalls to Killiney Bay, c. 3.3km south of the proposed development site. Coliemore Harbour is not hydrologically connected to this river waterbody. Under the Water Framework Directive (WFD) (2000/60/EC) the Kill-O-The-Grange Stream (Kill of the Grange Stream_010) has a status of ‘poor’ and is considered ‘at risk’. According to the EPA Map Viewer, the most recent surface water quality information for the Kill of the Grange Stream downstream of the proposed development site at monitoring point RS10K020200 indicated a Q-value score of 3 indicating ‘poor’ water quality status.

The proposed development site is located within coastal waters that connect the proposed development site to Dublin Bay and the Irish Sea. The Water Framework Directive (WFD) (2000/60/EC) status 2013-2018 of Dublin Bay (HA10) is considered to be ‘Good’ and is ‘Not at Risk’ of not meeting the WFD objectives. Water Quality data from 2010-2012 indicate that the coastal waterbody is ‘Unpolluted’.

4.3.7 Land and Soils

The topography of the area lies between 0-10mOD, falling towards the sea. The footpath slopes upwards from an elevation of 2.5mOD in the south-east to 7.8mOD in the north-west, while the elevation of the viewing platform ranges from c. 6.3 to 8mOD.

The rock slope at Coliemore Harbour is comprised of granite which is an igneous crystalline rock. The rock mass is highly weathered with zones of grey and black liche staining.

During a site inspection carried out in August 2020, at least five joints were noted on the surface which generally run sub-vertically through the rock mass. The joints are moderately narrow (20-60mm) and clean with joint spacing ranging from approximately 1.00m to 5.20m.

Geological Survey of Ireland (GSI) data indicates that the bedrock formation on site is ‘Type 2p microcline porphyritic (Northern and Upper Liffey Valley Plutons), comprised of Granite with microcline phenocrysts.

The EPA subsoils mapping (available at: <https://gis.epa.ie/EPAMaps/>) identifies the bedrock as at the harbour as ‘made ground’ (man-made material) and ‘bedrock at or close to the surface,’ as shown in **Figure 4.5**.

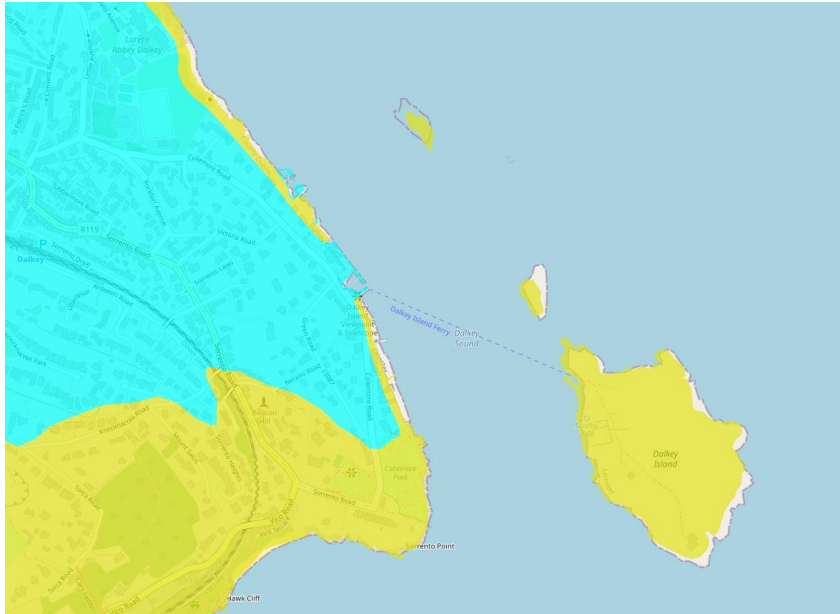


Figure 4.5: EPA Subsoils Mapping Coliemore Harbour (Key: Blue – made ground; Yellow – bedrock at or close to the surface)

Dalkey Coastal Zone pNHA which overlaps with the Coliemore Harbour site is classified for its geological importance in addition to the habitats identified in **Section 4.3.2**. Dalkey Island is low-lying, the highest point at c.15m is marked by a Martello Tower. Soil cover consists mainly of thin peaty layers, though in a few places there are boulder clay deposits.

Lamb Island lies to the north of Dalkey Island, attached at low-tided by a rocky reef. It has thin soil cover and some vegetation, mainly of grasses. Further north lies Maidens Rock, a bare angular granite rock up to 5m high. There is no vegetation cover.

The EPA Corine (2018) land use mapping identifies the land use in the vicinity of Coliemore Harbour as ‘Artificial Surfaces’ made up of ‘Discontinuous Urban Fabric,’ as shown in **Figure 4.6**.

4.3.8 Landscape and Visual

The importance of landscape and visual amenity and the role of its protection are recognised in the Planning and Development Act 2000 as amended, which requires that Development Plans include objectives for the preservation of the landscape, views and the amenities of places and features of natural beauty.

The Dun Laoghaire Rathdown County Development Plan designates High Amenity Zones in the southern portion of the County. These areas consist of landscapes of special value where inappropriate development would contribute to a significant diminution of the landscape setting of the County.

It is the policy of the Council to conserve and enhance existing High Amenity Zones and to seek to manage these and other areas to absorb further recreational uses and activity without damaging the amenities that affords them their special character. The areas adjacent to the High Amenity areas are also sensitive landscapes as development in these areas may affect directly or indirectly the quality of the High Amenity areas. The Dalkey Islands are designated as a High Amenity Zone, and thus Coliemore Harbour is considered a sensitive landscape.

There are several Protected Views and Prospects identified in the Dún Laoghaire-Rathdown County Development Plan 2016-2022, located at and close to Coliemore Harbour.

4.3.9 Material Assets

4.3.9.1 Water Supply

Irish Water are responsible for the delivery, integration and implementation of strategic water and waste-water projects and infrastructural improvements in Dún Laoghaire Rathdown.

The water supply infrastructure ensures compliance with the Water Framework Directive, EU Urban Waste-Water Treatment Directive and Drinking Water Regulations which helps to protect human health and maintain the quality of coastal waters.

4.3.9.2 Waste-Water Treatment

Wastewater arising from Dún Laoghaire Rathdown is collected by the wastewater collection network and pumped to one of two waste water treatment plants, either: for the south of the County, Shanganagh (where the waste water undergoes secondary treatment); or, for some catchments in the north of the County such as Dodder Valley and UCD, Ringsend (where the waste water undergoes tertiary treatment).

4.3.9.3 Waste Management

Dún Laoghaire-Rathdown has no landfill site or any active waste treatment facilities in its functional area.

The vast bulk of waste that arises in the County is collected locally by private waste companies and transferred to facilities outside the County at Kill and KTK Landfill at Kilcullen, Co. Kildare.

4.3.9.4 Transport

The Dún Laoghaire-Rathdown County Development Plan's Sustainable Communities Strategy is to ensure residents will be within walking distance of public transport networks and supporting community infrastructure including shops, services, employment, education and leisure facilities.

The number of cycling trips made is higher than the Greater Dublin Area average. The car, however, remains the dominant mode of transport.

4.4 Description of Likely Significant Effects

4.4.1 Mitigation Measures

4.4.1.1 Construction Phase

Method Statements

The contractor will employ normal good construction practice measures to control emissions and nuisance and avoid pollution from the construction works. The contractor has prepared method statements for the key construction operations. The method statements include the detailed mitigation measures proposed for each element of the works.

Construction Environmental Management Plan

The CEMP has been prepared to provide a framework that describes how the mitigation measures will be implemented in order to minimise the negative environmental effects of the construction of the proposed development. This CEMP has been produced, as part of the application for approval, to ensure compliance with the mitigation measures, including those specified in the NIS.

This CEMP identifies the minimum requirements with regard to the appropriate mitigation, monitoring, inspection and reporting mechanisms that need to be implemented throughout the construction phase. Compliance with this CEMP will not absolve DLRCC, and the Contractor (PJ Edwards & Co Ltd) from compliance with all legislation and bylaws relating to the construction activities.

Community Liaison

The works areas will be securely fenced off to ensure the safety of the general public at all times.

The contractor will liaise with the residential community and the businesses, located on the roads likely to be affected by the works, in relation to the timing and phasing of the works. In particular, the local residents will be notified in advance of the planned works.

Working Hours

The normal working hours will be from 08:00 to 18.00 Monday to Friday, and 08:00 to 14:00 on Saturdays. Work outside these hours will only be undertaken in exceptional circumstances, dictated by weather or in order to complete a task or for public safety reasons. Local residents will be informed of any works to be undertaken outside normal working hours.

Traffic Management

Deliveries to the works and removal of waste from the works will be planned to avoid the main commuter rush hour, where feasible. Traffic will be managed with a single lane closure on Coliemore Road adjacent to the pier and viewing platform for approximately 4 hours to facilitate the removal of the temporary walkway. Care will be taken to avoid obstructing and to maintain access to dwellings and businesses throughout the works. A Construction Traffic Management Plan has been prepared and will be subject to on-going review throughout the construction phase.

4.4.1.2 Operational Phase

The proposed development will require monitoring and maintenance on a planned and regular basis to prevent failures and prolong the life of the rock anchors. The frequency of inspection will be increased after a storm event. The inspections will include visual surveys of the physical condition of the anchored structure. The results of all inspections will be recorded and filed for reference during future inspections, maintenance, and management. The preservation of the rock anchor will be achieved by conducting appropriate maintenance where required in order to prevent failure of the anchored structure. Maintenance and repair of rock anchors will be carried out to prevent deformities, damage and deterioration.

The early intervention will be ensured through maintenance as a result of the regular detailed inspections. It is not expected that the monitoring and maintenance will result in significant disturbance, and as such environmental impacts are expected to be not significant.

The construction mitigation measures to minimise the impact on residents, described above, will be employed during the operational phase, where relevant.

4.4.2 Population

Coliemore Harbour has significant amenity use in the local area, with considerable usage in a relatively small space particularly in the summer season. There are large number of residential developments within close proximity to the harbour. The harbour is used for sport and leisure activities as well as accommodating the ferry service to the Dalkey Islands. As the harbour is a high amenity area with many users and visitors it is likely that occasional visitors would have no experience of harbour safety.

The public access to Coliemore Harbour viewing platform will be closed for the duration of the works to ensure public safety.

The site will be securely fenced and sign posted early in the construction phase. The construction works have been planned to avoid the busy summer season.

The construction works will result in a temporary increase in noise and there is the potential for dust emissions. Additional traffic will be generated by the vehicles servicing the construction works. One lane of the two-lane road will be closed for a short duration to facilitate the works.

There will be for a very short duration, temporary minor loss of residential amenity for the residents along Coliemore Road, during normal working hours, for the short duration of the construction works.

Once operational, the proposed development is expected to have an imperceptible effect on the local amenity. Every effort will be made to ensure the preservation of the 'harbour experience' while maintaining public safety in equal measure.

4.4.3 Biodiversity

The potential impacts to designated sites from the proposed development are assessed in detail in the Natura Impact Statement Report and Ecological Impact Assessment Report (both prepared by Scott Cawley Ltd.) which accompany this application. This section gives an outline of the potential significant effects from the proposed development.

Coliemore Harbour is in close proximity to designated sites (as mentioned in **Section 4.3.2**). These designated sites and surrounding habitats which contain protected ecology, are close enough to the harbour that a disturbance could have an impact on these habitats and species within these areas. There are a range of breeding bird and wintering bird species and marine mammal species recorded in the vicinity of the proposed development, outlined in **Section 4.3.2**.

Although there will be no direct interaction with the habitats within the designated sites, the potential effects of this may include other habitat loss or fragmentation, disturbance or displacement impacts, habitat degradation as a result of hydrological impacts. However, the loss of aquatic habitat and intertidal rocky shore habitat is negligible in size and the loss will be temporary until the works are complete and re-establish post construction. The works have been planned to take place outside of breeding bird season to reduce the risk of interfering with breeding bird species nesting in the harbour.

The proposed development will result in the temporary loss of a small area of littoral rock habitat during construction works. However, their loss or modification will not result in a likely significant effect on biodiversity. Rocky shore communities typically re-establish in 2-10 years, meaning that any impacts on these communities arising from the proposed development will be temporary in nature.

Breeding waterbird species would be vulnerable to habitat loss and fragmentation as a result of the proposed development. The machinery associated with the construction phase of the proposed development may result in temporary loss of suitable high tide loafing habitat for breeding bird species.

However, given that there are extensive areas of suitable alternative foraging and loafing habitats in the vicinity of the proposed development, the loss of this habitat is negligible in size and the loss will be temporary until the works are complete.

There is potential that noise and vibration associated with the construction phase of the proposed development could result in temporary disturbance and displacement effects to biodiversity. However, the highest noise levels are expected for short periods, with no potential for more than one of any of the noisiest pieces of equipment to be in operation simultaneously. Therefore, given this and the fact that works will be complete within eight weeks, and the extent of suitable alternative foraging habitat within the locality, it is not expected that the worst-case noise levels will cause significant disturbance to biodiversity.

There is potential for disturbance to bats and otters due to artificial lighting at the proposed development site. During the construction phase lighting will be minimised to reduce any short-term impacts. There is no permanent artificial lighting proposed as part of this development. Following the construction period, the artificial light levels at Coliemore Harbour will return to baseline levels. Therefore, there will be no permanent impacts to biodiversity arising from the proposed development.

An accidental pollution event during construction, or operation has the potential to affect water quality in Dublin Bay, as the proposed development site is located in Coliemore Harbour and the surface waters will drain directly into the harbour basin. Therefore, an accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the water quality in Dublin Bay. A reduction in water quality in Dublin Bay has the potential to affect the coastal, estuarine and intertidal environments and natural conditions that support the conservation objectives of the qualifying interests/special conservation interests of designated sites.

A precautionary approach will be taken to the works in the harbour to ensure minimal disturbance to the diverse ecological habitats. There will be mitigation measures implemented during construction and operation to avoid or reduce the potential impacts of the proposed development on biodiversity. These measures include grout management, pollution control, spill protection and incident management, which are detailed in the Construction Environmental Management Plan (CEMP) accompanying this application. In addition, the noise levels will be monitored and controlled to minimise disturbance, as outlined in **Section 4.4.7**. As such, given the brief nature of the works and proposed mitigation measures the construction of the proposed development is not likely to have a significant effect on habitats of value or on the species of birds and mammals recorded in the area. Similarly, the operation of the proposed development is not likely to have a significant effect on biodiversity.

4.4.4 Archaeology, Architecture and Cultural Heritage

The archaeological and cultural heritage baseline is described in **Section 4.3.3** above.

The potential impacts to archaeology and cultural heritage from the proposed development are assessed in detail in the Architectural Heritage Impact Assessment report which accompanies this application. This section gives an outline of the potential impacts.

It is recognised that Coliemore Harbour is of major historic importance as it is a Protected Structure. There is also a number of recorded monuments in close proximity to the harbour. Dalkey, the town in which the harbour is situated is considered an ACA, therefore it is considered a sensitive landscape. The ACA designation requires that planning permission must be obtained before significant works can be carried out to the exterior of a structure in the ACA which might alter the character of the structure or the ACA.

The design of the proposed development incorporates measures for minimal intrusion. During the construction phase, all precautionary measures will be taken to ensure no damage to the existing structure during the construction operations, as included in the CEMP, which accompanies this application.

The steel rings on the rock anchors will be the only legible element of the stabilisation works at Coliemore Harbour. It is considered that the minor visual intrusion to the existing natural rock surface due to the steel rings will be mitigated by the easy access that will be provided for ongoing monitoring and adjustment of the rock anchors as well as ensuring durability, unlike other potential measures that minimise visual impact.

The design objective is to retain the existing structure whilst maintaining its character. The proposed development will provide support to the structure, restoring the integrity of the rock face and maintaining public safety. The exterior elements have been chosen to reflect the specifics of the harbour's history and heritage. In this respect, the proposed development is of benefit to the protected structure, enhancing its preservation.

No other architectural or archaeological heritage features or structures are expected to be impacted by the construction or operation of the proposed development.

Dun Laoghaire-Rathdown County Council endeavours to safeguard, preserve, maintain and promote awareness of, and try to facilitate appropriate access to, the cultural and natural heritage of the Dalkey Islands and surrounds. This is done under the guiding principles of minimal intervention. The proposed development will maintain this objective.

As such, neither the construction nor the operation of the proposed development is expected to have a significant effect on archaeology, architectural and cultural heritage.

4.4.5 Air Quality

The baseline air quality impacts in the area are within EPA standards. There is potential for air quality effects during the construction works at Coliemore Harbour which have the potential to cause short-term disturbance to nearby sensitive receivers and sensitive fauna that utilise the harbour.

The construction phase of the proposed development will result in the emission to air of the combustion exhausts from the construction plant and machinery and the vehicles used to transport the workforce, materials and waste to and from the works areas.

There may also be emissions of dust from the relatively minor drilling activities, which will be required. The construction works will be relatively small-scale. The contractor will implement normal good practice measures in monitoring and reducing exhaust and dust emissions, as outlined in the CEMP. Construction traffic will be managed to keep trips by heavy goods vehicles to the practical minimum. The emissions to air from the construction phase will be temporary and the effect on air quality is not expected to be significant.

The operation of the proposed development is expected to result in an imperceptible effect to air quality.

4.4.6 Climate

The construction phase of the proposed development will result in the emission of greenhouse gases from the construction plant and machinery and the vehicles used to transport the workforce, materials and waste to and from the works areas. The construction works will be relatively small-scale. The contractor will implement normal good practice in optimising the use of plant and equipment. Construction traffic will be managed to keep trips by heavy goods vehicles to the practical minimum. The emissions of greenhouse gases from the construction phase will be temporary and are not expected to be significant.

The mortar, grout, rods, steel plates, anchors, and paving materials, which will be used in the construction of the proposed development, will have embodied carbon. However, it is a small-scale project relative to the scale of the construction industry in Ireland and the quantity of embodied carbon is not expected to be significant.

The operation of the proposed development is expected to have an imperceptible effect to climate.

4.4.7 Noise and Vibration

There is potential for noise and vibration effects during the construction works at Coliemore Harbour which have the potential to cause short-term disturbance to nearby sensitive receivers and sensitive fauna that utilise the harbour.

The construction phase of the proposed development will result in noise emissions from construction plant and machinery (such as a grout mixer and pump, mobile telescopic crane, hand-held pneumatic rock drill, hand-held pneumatic breaker) and the vehicles used to transport the workforce, materials and waste to and from the works areas. The construction works will be small-scale and the contractor will implement normal good practice in reducing noise from the construction works. The contractor will notify the residents of the timing and duration of the works in their area.

The noisiest piece of equipment (hand-held pneumatic breaker) will generate a sound pressure level of up to 95dBA at 10m for relatively brief periods of time. In operation, this will effectively mask noise generated by other equipment with sound pressure levels more than 10dB lower.

Noise modelling was carried out on the four noisiest pieces of equipment (which range in sound pressure levels of 95dBA down to 84dBA at 10m). There is no potential for more than one of any of these four pieces of equipment to be in operation at the same time. Simultaneous operation of equipment sums to a total equivalent sound pressure of 97dBA at 10m from construction activity. The highest possible noise levels modelled will only occur for relatively short periods of time, i.e., up to 30 minutes at a time.

Construction activities will be managed and monitored to ensure noise levels do not exceed recommended limits, outlined in the CEMP. It is not expected that there will be a likely significant disturbance, considering the existing urban setting and the low levels of noise predicted. The construction methodology has been carefully chosen to limit any disturbance to both sensitive receptors and sensitive fauna that utilise the harbour.

Works will be carried out during normal working hours. Low noise producing equipment will be used and will be powered off when not in use. In general, the emissions of noise from the construction works will be temporary and are not expected to be significant. However, residents may experience very localised temporary moderate noise effects, during normal working hours, from the works in their immediate vicinity.

The operation of the proposed development is expected to have an imperceptible noise and vibration effects.

4.4.8 Water Quality

There are many morphological pressures found along this urban coastline including built structures, port tonnage and coastal defences, despite this the coastal waterbody at Coliemore Harbour is of 'Good' status which can support the diverse ecology.

The construction methodology has been chosen to minimise impacts to water quality to ensure the coastal waterbody will continue to support the natural ecology which would have existed. It is therefore essential that the construction works do not cause a deterioration in water quality and that the nature of the works chosen limit any such deterioration.

There will be no planned discharges to the surface water network during the construction phase. However, the construction activities have the potential to result in the pollution of the coastal waterbody or the surface water drainage network due to spills or leaks of materials and fuels, which could result in the pollution of the water network. The contractor will employ normal good construction practice measures to control emissions and avoid pollution from the construction works.

There will be spill management measures implemented throughout the construction phase to minimise spillages of grout or other materials into the coastal waterbody, as described in the CEMP, which accompanies this application.

Neither the construction nor the operation of the proposed development is expected to have a significant effect on water quality.

The construction works within the harbour will be carried out during low tide and as such there is limited flood risk associated the construction phase. There is potential for the proposed development to have a potential slight positive effect on flood risk, by providing additional structural support to the rock face which serves as coastal defence works.

4.4.9 Land and Soils

The existing bedrock as at the harbour consists of ‘made ground’ (man-made material) and ‘bedrock at or close to the surface.’

The proposed development will restore the integrity of the rock face and maintain public safety. In this respect, there will be a slight positive effect to the rockface during the operational phase.

Stone and naturally occurring material, generated during the course of the works, will be re-used on site where feasible. Off-site re-use options will be sought for additional material, for which there is no reused requirement on site. No materials with the potential for use as aggregate will be affected by the proposed development. The reuse of surplus material as a by-product on other construction sites will be subject to Article 27 notification to the EPA, or recovery at suitable authorised waste facilities i.e., facilities which have been granted a Certificate of Registration, Waste Facility Permit or EPA licensed soil recovery facilities in accordance with the Waste Management Acts 1996-2016.

There will be no planned discharges to ground during the construction phase. However, the construction activities have the potential to result in the pollution of land and soils due to spills or leaks of materials and fuels. The contractor will employ normal good construction practice measures to control emissions and avoid pollution from the construction works, as included in the CEMP, which accompanies this application.

There are no significant effects to land and soils expected due to the construction phase of the proposed development.

Groundwater will not be extracted during the construction works and there is not expected to be any effect on existing wells as a result of the proposed works. There will be no planned discharges to ground or groundwater during the construction phase.

However, the construction activities have the potential to result in the pollution of groundwater due to spills or leaks of materials and fuels, which could result in the pollution of the underlying groundwater.

The contractor will employ normal good construction practice measures to control emissions and avoid pollution from the construction works, as included in the CEMP, which accompanies this application.

Neither the construction nor the operation of the proposed development is expected to have a significant effect on groundwater.

4.4.10 Landscape and Visual

The Dalkey Islands are designated as a High Amenity Zone and ACA, and thus Coliemore Harbour is considered a sensitive landscape.

There will be a very localised moderate short-term impact on visual amenity, in the immediate vicinity of the proposed development due to the construction phase of the proposed development during the course of the works (8 weeks).

Once operational, the proposed development will be a relatively inconspicuous feature at low-level. The external features have been chosen to reflect the specifics of the harbour's history and heritage. However, the appropriately-finished rings to be fixed to the rock anchors will have a minor effect on the overall visual amenity of the harbour due to the external features on the rockface. The nineteenth-century form and masonry finish of the rockface will remain unchanged by the proposed development.

The operation of the proposed development is not expected to have a significant effect on the landscape or visual amenity.

4.4.11 Material Assets

The surrounding area is an urban residential area of high amenity, with an associated concentration of infrastructure, utilities and services serving that population.

The construction operations will avoid any potential significant impacts on the material assets including utilities, transport and local access. There will be traffic management measures implemented, as outlined in the Construction Traffic Management Plan, included in the CEMP, which accompanies this application.

The proposed works are relatively small-scale and as such there are no significant impacts to material assets expected at the construction or operational phases.

4.4.12 Resource and Waste

The construction phase will use natural resources such as water, crushed stone, sand and gravel aggregate. Fuel will be used in plant and equipment and in the vehicles servicing the works.

The construction works will be relatively small-scale. The contractor will implement normal good practice in optimising the consumption of resources and the use of plant and equipment. Construction traffic will be managed to keep trips by heavy goods vehicles to the practical minimum. The use of natural resources in the construction phase will be temporary and is not expected to be significant.

The construction works will be relatively small-scale. The contractor will employ normal good waste management practices to minimise waste generation, store wastes separately and prioritise reuse and recycling of waste over disposal. Wastes will be transported by appropriately licensed or permitted contractors and managed in appropriately licensed or permitted facilities. The generation of waste in the construction phase will be temporary and is not expected to be significant.

There will be minimal resource requirements or waste arisings from routine maintenance operations during the operation of the proposed development. This will have an imperceptible effect on the environment.

4.4.12.1 Cumulative Effects

The proposed development will have a temporary minor effect, for a period of 8 weeks at most, on amenity in the immediate vicinity of the construction works.

The small-scale projects in Dalkey and the wider area were screened out of consideration as these are unlikely to give rise to significant negative effects in combination with the proposed development. The proposed development is a small-scale project and the effects on all aspects of the environment are not expected to be significant. Therefore, there are no cumulative effects predicted during construction or operation of the proposed development in combination with other developments.

5 EIA Screening

5.1 Screening Checklist

The potential environmental effects associated with the proposed Coliemore Harbour project have been outlined in previous sections of this report.

The EC Guidance on EIA Screening (EC, 2017) provides a checklist to help users decide whether an EIA is required based on the characteristics of a project and its environment. This screening checklist is presented in **Table 5.1**.

Table 5.1: Screening Checklist to determine if EIA is required based on the characteristics of a project and its environment

Brief Project Description	Yes/No	Is this likely to result in a significant impact? Yes/No – Why?
1. Will construction, operation or decommissioning of the project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc.)?	Yes. The construction of the project will cause very minor physical changes to topography and land use in the locality. There will be no change to waterbodies.	No. The changes will not be significant.
2. Will construction or operation of the project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	Yes. The project will use natural resources such as land, water, materials or energy. The construction materials will be non-renewable but they are not in short supply, and will be relatively small quantities given the scale of the project.	No. The use non-renewable resources will not be significant.
3. Will the project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	Yes. Construction of the project will use small quantities of fuels, lubricants and other chemicals which could be harmful to the environment, if there was a spill or leak.	No. Such materials will be stored and used in relatively small quantities. Normal good construction practice will minimise the risk of a spill or leak and a response plan will be in place to minimise the consequences should a spill or leak occur.
4. Will the project produce solid wastes during construction or operation or decommissioning?	Yes. The construction works will produce small quantities of stone, aggregate, and organic material.	No. The quantities of waste generated will be relatively small. Normal good construction waste management practice will minimise the generation of waste and prioritise reuse and recycling of waste over disposal.

Brief Project Description	Yes/No	Is this likely to result in a significant impact? Yes/No – Why?
5. Will the project release pollutants or any hazardous, toxic or noxious substances to air or lead to exceeding Ambient Air Quality standards in Directives 2008/50/EC and 2004/107/EC?	Yes. The construction of the project will result in the emission to air of the combustion exhaust from the construction plant and machinery and the vehicles used to transport the workforce, materials and waste to and from the works areas.	No. The construction works will be small-scale. The contractor will implement normal good practice in reducing exhaust and dust emissions. Construction traffic will be managed to keep trips by heavy goods vehicles to the practical minimum. Air quality standards will not be exceeded.
6. Will the project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	Yes. The construction phase of the proposed development will result in low levels of noise emissions from construction plant and machinery and from the vehicles used to transport of the workforce, materials and waste.	No. During construction there will be short periods (up to 30 minutes at a time), during daytime working hours where there is potential for slight, temporary effect from noise emissions, on residents in the immediate vicinity of the construction works. For the remainder of the construction phase, noise emissions will not be significant.
7. Will the project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	Yes. Construction of the project will use grout material, fuels, lubricants and other chemicals which could cause contamination and/or disturbance to sensitive fauna, if there was a spill or leak.	No. Such materials will be stored and used in relatively small quantities. Normal good construction practice will minimise the risk of a spill or leak and a response plan will be in place to minimise the consequences should a spill or leak occur.
8. Will there be any risk of accidents during construction or operation of the project which could affect human health or the environment?	Yes. There will be the risk of accidents which could affect human health or the environment during the construction phase.	No. Normal good health and safety precautions during the construction phase will minimise the risk of accidents to the workforce, the general public and road users.
9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?	No.	No.
10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	No.	No.

Brief Project Description	Yes/No	Is this likely to result in a significant impact? Yes/No – Why?
<p>11. Is the project located within or close to any areas which are protected under international, EU, or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?</p>	<p>Ecology: Yes. At its closest point, the project is 0.2m from the Rockabill to Dalkey Island SAC (Site code 003000), Natura 2000 site. At its closest point, the project is 0.15m from the Dalkey Island SPA (Site code 004172), Natura 2000 site. The project overlaps with Dalkey Coastal Zone and Killiney Hill pNHA (Site code 001206), a site designated under national legislation.</p> <p>Cultural Heritage: Yes. The area is designated as an Architectural Conservation Area. Coliemore Harbour is both a Protected Structure. The project is located close to sites with national or local cultural heritage designations.</p> <p>Landscape: Yes. The area, in which the project is located has a number of protected views.</p>	<p>Ecology: No. The project is not expected to have an impact on a site protected under the Habitats Directive or under national legislation.</p> <p>Cultural Heritage: No. The project is not expected to have an impact on a site which has a national or local cultural heritage designation.</p> <p>Landscape: No. The construction and operation of the proposed development is not expected to have a significant impact to landscape.</p> <p>No. The proposed development is not expected to have a significant effect on the landscape or visual amenity.</p>
<p>12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g., wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?</p>	<p>Yes. The project is situated at the coastal waterbody at Dalkey Island which is of ecological sensitivity – use of the area by Black Guillemots and marine mammals has been noted.</p>	<p>No. The construction and operation of the proposed development is not expected to have a significant effect on the coastal waterbody.</p>
<p>13. Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g., for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?</p>	<p>Yes. Refer to Q11.</p>	<p>No. Refer to Q11.</p>
<p>14. Are there any inland, coastal, marine or underground waters (or features of the marine environment) on or around the location that could be affected by the project?</p>	<p>Yes. The project is situated at the coastal waterbody at Dalkey Island. Generally, the groundwater vulnerability is rated high and extreme. There will be no planned discharges to ground or groundwater from the project.</p>	<p>No. The marine and coastal waters will not be affected by the project. The contractor will employ normal good construction practice measures to control emissions and avoid pollution of the ground and groundwater.</p>

Brief Project Description	Yes/No	Is this likely to result in a significant impact? Yes/No – Why?
	However, the construction activities have the potential to result in the pollution of land and soils due spills or leaks of materials and fuels.	The construction and operation of the proposed development is not expected to have a significant effect on underground waters.
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	Yes. Refer to Q11.	No. Refer to Q11.
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	Yes. The Coliemore Road is a busy local road situated in a residential and high amenity area. The viewing platform at Coliemore Harbour will be closed to the public for the duration of the works (8 weeks).	No. During construction, there will be a single lane closure on Coliemore Road for a very short duration. There will be disruption to the traffic for a short duration on that section. The effect on the local road network and amenity of Coliemore Harbour is expected to be temporary, for the duration of construction in an area, and locally moderate negative.
17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	Yes. Refer to Q16.	No. Refer to Q16.
18. Is the project in a location where it is likely to be highly visible to many people?	Yes. The project is situated in a busy, high amenity area.	No. The project is small in scale, and the design of the external features have been chosen to reflect the specifics of the harbour's history and heritage.
19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	Yes. Refer to Q11.	No. Refer to Q11. The contractor will employ normal good construction practice measures.
20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	No.	No.
21. Are there existing land uses on or around the location e.g., homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities,	Yes. The project is located in a busy, residential area of high amenity. The closest residential developments include houses along the opposite side of Coliemore Road approximately 40m from the affected wall of the harbour.	No. There will be temporary disruption to traffic on the local road network affected by the project. Construction will give rise to noise and emissions air. The construction works will be relatively small-scale.

Brief Project Description	Yes/No	Is this likely to result in a significant impact? Yes/No – Why?
agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	Most of the developments within the immediate proximity to the harbour are residential. There is an apartment complex, the ‘Coliemore Apartments,’ to the north of the harbour approximately 80m from the affected wall. The Dalkey Rowing Club is located approximately 20m from Coliemore Harbour to the immediate south of the affected wall. There is a school, ‘Tiggy’s Art School,’ located approximately 100m to the west of Coliemore Harbour off Green Road.	The contractor will implement normal good practice to minimise emissions. The effects of the construction phase will be temporary and are not expected to be significant. There will be no significant effects during the operational phase.
22. Are there any plans for future land uses on or around the location which could be affected by the project?	No.	No.
23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	Yes. Refer to Q21.	No. Refer to Q21.
24. Are there any areas on or around the location which are occupied by sensitive land uses e.g., hospitals, schools, places of worship, community facilities, which could be affected by the project?	Yes. Refer to Q21.	No. Refer to Q21.
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g., groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	Yes. Refer to Q14. Coliemore Harbour is a high amenity area which attracts tourism. The viewing platform at Coliemore Harbour will be closed to the public for the duration of the works (8 weeks).	No. Refer to Q14. The works will be completed over a short duration, outside of the busy summer season.
26. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g., where existing legal environmental standards are exceeded, which could be affected by the project?	No.	N/a

Brief Project Description	Yes/No	Is this likely to result in a significant impact? Yes/No – Why?
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g., temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	Yes. The location is subject to coastal erosion.	No. The proposed development will provide additional structural support to the rock face which serves as coastal defence works.

5.2 Screening Conclusion

The conclusion of the EIA Screening is based on the nature of the proposed development, the baseline environment in the area and the likely significant effects of the proposed development.

The nature, scale and location of the proposed development is such that there is no real likelihood of significant effects on the environment arising from the proposed development. It is the conclusion of Arup's EIA screening exercise that an EIA is not required. The final determination in this regard will be made by the competent authority.

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