Facility Centre for Water Based Activities at Killiney Beach

EIA Screening Report

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Dún Laoghaire Rathdown County Council

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Contract

This report describes work commissioned by Dún Laoghaire Rathdown County Council, by an email dated 28/03/2023. Conor O'Neill of JBA Consulting carried out this work.

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Purpose

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Abbreviations

AA - Appropriate Assessment

CEMP - Construction Environmental Management Plan

DLRCC - Dún Laoghaire Rathdown County Council

EIAR - Environmental Impact Assessment Report

LAP - Local Area Plan

NIAH - National Inventory of Architectural Heritage

NMS - National Monuments Service

SFRA - Strategic Flood Risk Assessment

WFD - Water Framework Directive

1 Introduction

JBA Consulting Engineers and Scientists Ltd. (hereafter JBA) has been commissioned by Dún Laoghaire Rathdown County Council to prepare an EIA Screening Report for a proposed watersports facility at Killiney Beach, Dún Laoghaire-Rathdown (the 'proposed development'). The proposed development, which will be submitted under Part 8 of the Planning and Development Act (2000) as amended, will be a Facility Centre for Water Based Activities at Killiney Beach. It will consist of a single-storey, flat-roofed facility with associated required site works and utilities connections.

1.1 Purpose of this Report

The purpose of this report is to identify whether there is a need under the Planning and Development Act 2000, as amended, for an EIAR for the proposed development.

Schedule 5 (Parts 1 and 2) of the Act lists the groups of development projects which are subject to EIA screening under the EIA Directive 2011/92/EU, as amended by Directive 2014/52/EU. Part 1 lists those projects which are automatically subject to an EIAR due to the scale and nature of the project. Part 2 lists projects which are also likely to have significant environmental effects based on the nature and size of the development set out by threshold criteria.

An additional group of projects, which are considered sub-threshold developments under Part 2, may fall below the thresholds set but may, under further analysis, be deemed to have significant effects due to their location within a catchment, size, or proximity to sensitive areas.

This report documents the methodology employed to determine whether the proposed development falls under any of these groups, and therefore will have significant environmental impacts. Rationale has been given for the decision made in reference to the relevant legislation, and additional documents have been referenced where required.

This report is intended for the project as described below. Any significant changes to the project description or location would require preparation of a new EIA screening report.

An Appropriate Assessment (AA) Screening Report has been prepared by JBA Consulting and has identified any potential impacts to Natura 2000 sites. This EIA Screening document, along with the AA Screening Report, will be submitted as part of the Part 8 planning process for the proposed development.

2 Description of Proposed Works

2.1 Site Location

The site is located on Killiney beach next to the beach carpark adjacent to Strathmore Road. The site is a grassed area that sits on made ground, above the beach and protected from the sea by gabions.

The site has public transport links with the adjacent Killiney DART station. To the south of the site, there is pedestrian access via an existing footpath that extends northwards from the DART station. There is a surface pay-and-display carpark, operated by Dún Laoghaire-Rathdown County Council, at the DART station on Station Road. Pedestrian access from the northern end of the Killiney DART station carpark is under an arched bridge.

Adjacent to the site, there is an on-beach carpark off Strathmore Road. This is free-to-use and will remain in operation during the works, likely at reduced capacity due to presence of contractor's compound. Vehicular, cyclist, and pedestrian access via Strathmore Road is under an existing overhead train line, via a height-restricted underpass.

Figure 2.1: Site Location

2.2 Proposed Development

The project consists of a single-storey, flat-roofed facility with associated required site works and utilities connections. The amenity provides for 5 No. WCs (which includes 1 No. Changing Places toilet and shower and 1 No. accessible toilet and shower), 5 No. shower/changing cubicles, 4 No. external showers, with sheltered demonstration space, seating, lockers and drinking fountain. Also included are associated plant / mechanical and electrical spaces, solar panels, and paved areas. All refuelling for machinery will occur outside of the site area, with all fuel also stored away from the site.

The lower sloping ground around the proposed development site is expected to allow any overtopping water to drain back to the sea.

A site strip will be implemented to create a working platform, while imported hardcore material will be utilised as a base for the works. The facility's foundations will extend below the frost zone, and be approximately 0.5m - 0.75m below ground level, while drainage pipe trenches will range from 1.2m- 2m below ground level with variation depending on pipe falls and gradients.

Foundations will consist of the following:

- The proposed pile foundations will consist of a grid of driven steel cased mini-piles;
- These piles will be filled with in situ concrete;
- An in situ reinforced concrete raft foundation will be cast on top of the pile grid and span between individual support piles.

The proposed site ground floor plan is shown in Figure 2.2.

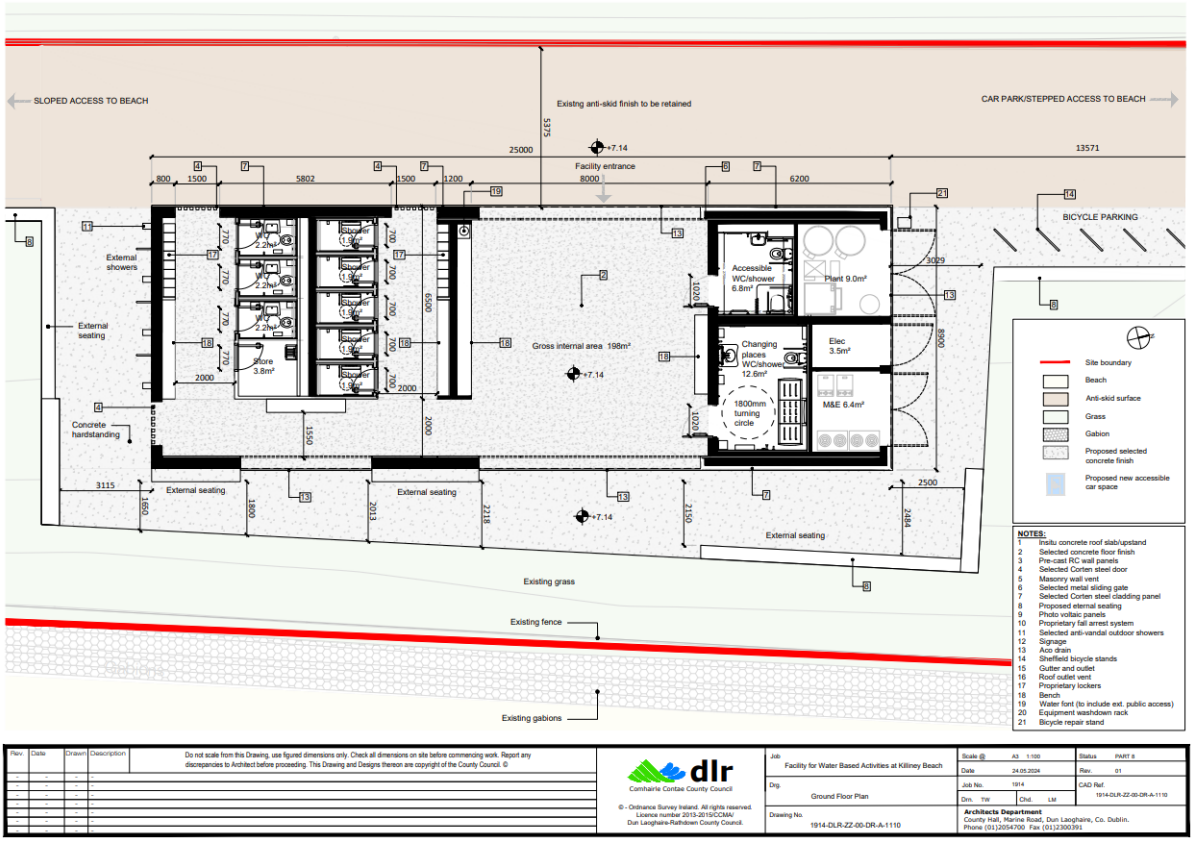

Figure 2.2: Ground floor layout plan (provided by client)

3 Purpose of Screening

3.1 Legislative Context for EIAR in Ireland

The EU has set out mandatory requirements for Environmental Impact Assessments under the EIA Directive 2011/92/EU (as amended by Directive 2014/52/EU). The Directive identifies certain project types, described under Annex I, that will always have significant environmental effects due to their nature and size. These projects are required to undergo an EIAR in every Member State.

For projects listed under Annex II, the EIA Directive gives Member States discretion to decide the limits of projects requiring an EIAR. In Ireland, mandatory thresholds have been set for projects that would otherwise fall under Annex II, which are described in Schedule 5 of The Planning and Development Regulations 2001 as amended. These thresholds are based on project characteristics including size and location. Projects within these thresholds are always subject to an EIAR. In some circumstances, projects considered below the thresholds set under Schedule 5 Part 2 may still be considered by the Planning Authority to have significant effects on the environment, such as in cases where the projects are in a location of particular environmental sensitivity and may also be subject to an EIAR. These sub-threshold projects are reviewed by the Planning Authority on a case-by-case basis.

The principal piece of legislation under which an EIAR may be undertaken for various developments is The Planning and Development Act 2000, as amended. Further regulations are explained in The Planning and Development (Environmental Impact Assessment) Regulations 2001-2018.

Legislation is examined below as to whether an EIAR will be required for this project.

3.2 The Planning and Development Act 2000 - Mandatory EIAR

The Planning and Development Act 2000, as amended, Section 172 sets out the types of projects that require an Environmental Impact Assessment Report (EIAR):

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 exceed 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 exceed 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 exceed 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.

3.2.1 Part 1 of Schedule 5 of the Planning and Development Regulations 2001 as amended

Projects which fall under Schedule 5, Part 1 are typically large infrastructure and energy projects and by their nature will always have significant environmental effects. The proposed development does not fall under Schedule 5, Part 1.

3.2.2 Part 2 of Schedule 5 of the Planning and Development Regulations 2001 as amended

With regards to Part 2 projects, the categories and thresholds were examined for the following category:

10. Infrastructure projects

(b) (ii) Construction of a car-park providing more than 400 spaces, other than a car-park provided as part of, and incidental to the primary purpose of, a development.

(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

(In this paragraph, “business district” means a district within a city or town in which the predominant land use is retail or commercial use.)

The proposed development does not fall under any of the categories above, nor any others in Schedule 5 of the Regulations. Therefore, an EIAR has not been automatically triggered for this proposed development.

However, it is necessary to consider if this development could result in significant environmental effects under the category of sub-threshold developments.

3.3 Sub-threshold EIAR

In accordance with the requirement to submit an EIAR with sub-threshold planning application (Article 103 of the Planning and Development Regulations 2001-2018), where a planning application for sub-threshold development is not accompanied by an EIAR, and the Planning Authority considers that the development is likely to have significant effects on the environment it shall, by notice in writing, require the applicant to submit an EIAR. This process therefore occurs after submission of an application, if that application is not accompanied by an EIAR.

The decision as to whether a development is likely to have ‘significant effects’ on the environment must be taken with reference to the criteria set out in Schedule 7A of the Planning and Development Regulations 2001-2018. Schedule 7A requires that the following information be provided for the purposes of screening sub-threshold development for EIAR:

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

b) a description of the location of the proposed development, with regard to the environmental sensitivity of geographical areas likely to be affected.

2. A description of the aspects of the environment likely to be significantly affected by the proposed development.

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—

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.

c) The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7 of the Planning and Development Regulations 2001-2018 (DHPLG 2018).

In order to assist planning and other consenting authorities in deciding if significant effects on the environment are likely to arise in the case of development below the national mandatory EIAR thresholds, the Minister for the Environment, Heritage and Local Government published a Guidance document in August 2003, the Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development and the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (DHPLG 2018b)

The criteria, as transposed in Irish legislation, are grouped under three headings:

i. Characteristics of Proposed Development

ii. Location of Proposed Development

iii. Characteristics of Potential Impacts

For the purposes of assessing if the development is likely to have significant effects on the environment in reference to these three parameters, the project is examined below in further detail.

4 Overview of Environmental Impacts

An overview of the potential environmental impacts of the development, according to theme presented in an EIAR, is provided below.

4.1 Population and Human Health

Once operational, the development will provide a positive impact to population and human health, by providing an attractive recreation facility. The proposed development will provide high quality changing facilities, showers, WCs, and sheltered spaces for those taking part in water-based activities, including surfing, sea kayaking, canoeing, coasteering, wind surfing, stand-up paddle boarding, snorkelling, and diving.

During construction, there is a risk to the health and safety of workers on the development, as with any construction project. This will be mitigated against by the operational plans devised by the contractor and will not be significant.

Residences in the vicinity of the proposed development will experience some negative impacts during the construction phase of the development. These will be temporary and will be mitigated against by the operational plans devised by the contractor and adherence to standard best practice regarding control of noise and vibration, dust, and limitations on working hours.

4.2 Biodiversity

Ecological receptors that must be examined include protected Natura 2000 sites under the Habitats Directive (92/43/EEC) and Birds Directive (2009/147/EC), as well as species protected under the Wildlife Act (1976), and any ecological receptors which may be negatively impacted by the proposed development, both directly and indirectly.

4.2.1 Proximity to Protected Sites

An Appropriate Assessment (AA) Screening has been completed by JBA Consulting for this project to determine whether there is a potential for impacts on nearby Natura 2000 sites.

Those sites within 5km, plus hydrological connectivity extension, of the proposed development are shown in Table 4.1.

The AA Screening determined that there are no likely significant impacts on any Natura 2000 sites as a result of the proposed development.

Table 4.1: Natura 2000 sites within 5km of the proposed development

Natura 2000 site	Site Code	Approximate direct distance from site	Approximate hydrological distance from site
Rockabill to Dalkey Island SAC	003000	1.4km	1.4km
Dalkey Islands SPA	004172	1.9km	1.9km
South Dublin Bay and River Tolka Estuary SPA	004024	4.7km	6.7km
South Dublin Bay SAC	000210	4.8km	6.8km

4.2.2 Other Ecological Receptors

The site currently contains amenity grassland, buildings and artificial surfaces, and a treeline, with areas of scrub and shingle and gravel banks and shingle and gravel shores also in the area.

An Ecological Impact Assessment (EcIA) was completed for this development by JBA. The EcIA found potential for impacts on several ecological receptors, including local habitats, and fauna such as ground-dwelling mammals, fish species, bats, and breeding birds, and potential for impacts on Dalkey Coastal Zone and Killiney Hill pNHA.

The EcIA outlines mitigation measures to be put in place for the development, which if strictly adhered to will reduce the potential impacts identified in that report to neutral. These measures, which are outlined in full in the EcIA, are summarised as follows:

- General construction stage mitigation, such as the preparation of a Construction Environmental Management Plan (CEMP) to be developed at detailed design stage, adherence to best practice environmental guidance, and preparation of construction method statements to be submitted to SDCC prior to site works commencing;
- Measures pertaining to the location and setup of the site compound. The primary site compound is to be situated in the DART car park to the west of the site, with a secondary works compound north of the site, within the beach car park. Only plant and materials necessary for the construction works will be permitted to be stored at the secondary compound located within the site boundary, while refuelling and washdown of machinery will be limited to the compound located in the DART car park;
- Water quality measures for the prevention of watercourse pollution, spill prevention, and safe concrete management;
- Adoption of a surface water plan including appropriate barrier controls to prevent any polluted surface water or silt discharge from the site reaching adjacent marine habitats.
- General avoidance measures and noise and vibration limits;
- Construction site lighting design, including for the protection of bats using the area;
- Remedial grassland sowing in areas damaged by machinery crossing post-construction.
- A small quantity of information and wayfinding signage will be provided when the facility is operational. The Beaches and Traffic departments will be consulted to ensure consistency with existing signage and compliance with all relevant standards. This will minimise the risk of visitors to the beach trampling adjacent habitats.

With these mitigation measures put in place, the residual impacts of the proposed development on ecology will be neutral.

4.3 Soils and Geology

The underlying bedrock of the site is composed of dark blue-grey slat, phyllite and schist.

The subsoils underlying the site are primarily granite till, with beach sands along the eastern edge of the site.

Deep excavations are not expected, with most of the development above ground. Limited shallow excavations will be required for laying of services and foundations. Excavated material will be reused as fill where appropriate. Material not required for fill will be exported from the site and disposed of at appropriate licensed facilities. The expected amount of material to be excavated is not significant.

4.4 Hydrology and Hydrogeology

4.4.1 Surface Water

The proposed site lies within the Water Framework Directive (WFD) Ovoca-Vartry catchment and Dargle_SC_010 sub-catchment (EPA, 2020), and KILL OF THE GRANGE STREAM_010 river sub-basin (WFD waterbody). The WFD waterbody is classed as Poor and At Risk. There are no WFD river waterbodies within the site boundary or the immediate vicinity.

The site is adjacent to the Southwestern Irish Sea - Killiney Bay (HA10) coastal waterbody. Killiney Bay is at High Status and is Not at Risk.

During construction, impacts on surface waterbodies could occur due to accidental spills or poor management of surface water runoff. Without mitigation measures in place these could be significant due to the location of the development next to Killiney Bay coastal waterbody.

Mitigation measures for the protection of water quality during construction are included in the EcIA and summarised here:

- General construction stage mitigation, such as the preparation of a Construction Environmental Management Plan (CEMP) to be prepared at detailed design stage, adherence to best practice environmental guidance, and preparation of construction method statements to be submitted to DLRCC prior to site works commencing;

- Measures pertaining to the location and setup of the site compound. The primary site compound is to be situated in the DART car park to the west of the site, with a secondary works compound north of the site, within the beach car park;
- Water quality measures for the prevention of watercourse pollution, spill prevention, and safe concrete management;
- Adoption of a surface water plan including appropriate barrier controls to prevent any polluted surface water or silt discharge from the site reaching adjacent marine habitats.

The proposed development will be connected to the existing surface drainage network in the area as approved by DLR Drainage Department. The drainage design will include a filter to intercept particulate matter from any possible runoff associated with the proposed Corten Steel cladding material.

With these mitigation measures in place, significant impacts on the water environment due to the proposed development are not likely to occur.

4.4.2 Groundwater

The site is underlain by the Kilcullen (IE_EA_G_003) groundwater body, which is at Good status and At Risk.

Groundwater vulnerability, a measure of the likelihood of groundwater contamination occurring, is High to Extreme across the site. The site is therefore at a high risk of groundwater contamination.

There are no Groundwater Zone of Contribution sites listed by the EPA near the development site, nor any drinking water sites with groundwater abstraction that are not on the groundwater quality monitoring network.

The risk of groundwater contamination will only be present during the construction phase of the development, and with limited shallow excavations as outlined in Section 4.3, the potential impact is not significant; once operational, the development is unlikely to result in groundwater impacts.

4.4.3 Flood Risk

JBA prepared a Flood Risk Assessment and a separate Wave Overtopping Assessment for the proposed development. The main potential source of flooding for the development is wave overtopping during extreme coastal events. The site is above the estimated peak water levels for the 0.5% and 0.1% Annual Exceedance Probability (AEP) events, and is therefore in Flood Zone C. The FRA and Wave Overtopping Assessment outlined a range of development considerations, including surface water management, finished floor levels and building resilience, and considerations for access and egress.

Coastal erosion was also considered in the FRA and found not to be a significant risk to the site in the future.

4.5 Cultural Heritage

One recorded archaeological site is in the area. Battery No. 8 (DU026-012), a coastal battery constructed as part of sea defences for Dublin in the early 1800s, is situated at the end of Strathmore Road, on the far side of the railway to the proposed development. Direct impacts to the feature are not expected from the proposed development. However, the Zone of Notification for the record is partially within the site boundary. Notification will therefore need to be given to the National Monuments Service prior to development taking place.

Two Record of Protected Structures (RPS) sites are close to the proposed development. These are The Victorian Villa (RPS No. 1697) and Undercliff (RPS No. 1681). Direct impacts are not expected to either structure. Indirect visual impacts are likely during construction however these will be temporary and not significant.

4.6 Air and Climate

There is potential for impacts to air quality through emissions during the construction phase of the development, due to the operation of machinery on site and transport of materials to and from the site. These impacts will be mitigated against with measures outlined in the contractor's operating plans.

The proposed development will not lead to significant air or climate impacts during operation. 13 no. solar PV panels are proposed on the roof of the building, further reducing operational impacts on air and climate.

4.7 Noise and Vibration

There is potential for localised noise and vibration impacts in the vicinity of the proposed development during the construction phase due to operation of machinery on site. These impacts would be temporary and only during the construction phase. Mitigation measures against such impacts will be outlined in the operating plans to be devised by the contractor.

The proposed development will not lead to any significant noise or vibration impacts during operational period.

4.8 Landscape and Visual

The proposed development will give rise to temporary landscape or visual impacts to residents living in proximity to the development or people using the beach during the construction phase. Impacts during construction will be temporary and not significant.

There are no protected landscapes or views in proximity to the site.

When constructed, the proposed development will be low in landscape and visual impact for surrounding visual receptors. The building is low with only one storey, and the proposed finishes will be in keeping with the rock and exposed materials along the cliffs in the area. A pebble roof finish to relate to the beach surface is proposed which will reduce visual impact of the roof, which will be visible from the railway line. An intensive green roof will also be considered to further minimise visual impact of the roof.

4.9 Material Assets including Traffic, Utilities, and Waste

4.9.1 Traffic

During construction, there will be temporary disruptions on local roads during deliveries or due to machinery operating. Alternative routes are available in the area, and it is expected that such disruptions will be temporary and limited.

The proposed development is expected to create additional trips by car once operational. The site is served by an existing 12 space car park which is free to use. The development will include cycle parking and is served by Killiney DART Station. However, given the proposed use, it is likely that many users will travel to the site by car. This will have an impact on accessibility at the adjacent car park and narrow railway underbridge.

The underpass access to the site from Strathmore Road is not suitable for emergency services (i.e., ambulance or fire engine), although 4x4 Coast Guard vehicles can access the site. Alternative arrangements, such as parking on Strathmore Road or at Killiney DART Station car park, will be needed for emergency vehicles.

4.9.2 Utilities

The Railway Safety Act 2005 places an obligation on all persons carrying out works on or near the railway to ensure that there is no increase in risk to the railway as a consequence of the works.

Access to the site during construction is constrained by the railway and narrow railway underbridge. Consultation with Iarnród Éireann will be required prior to construction commencing.

Construction traffic crossing under the railway will pass through the railway underbridge (UBR121), which would be vulnerable should a construction vehicle hit it. An exposed gas main also runs under this bridge, parallel to the railway. All construction workers operating vehicles will be made aware of the clearance restrictions of this underbridge and gas main.

The proposed development will be serviced by electricity ducting, combined sewer, and watermains, all of which will pass under the railway underbridge and connect to existing services on Strathmore Road. Any services crossing over or under the railway require a wayleave licence with Iarnród Éireann.

4.9.3 Waste

Waste generated from site clearance will be inert and/or organic material and is expected to be redistributed or re-used within the site extents. Significant amounts of construction waste are not anticipated.

Once operational, the proposed development will not generate waste.

4.10 Cumulative Impacts

4.10.1 Plans

Dún Laoghaire Rathdown County Development Plan 2022-2028

The proposed development is in line with the Dún Laoghaire Rathdown County Development Plan 2022-2028. The development supports the following objectives:

- Policy Objective PDP15: Healthy County Plan
- 7 Policy Objective PDP17: Changing Places Bathrooms
- Policy Objective T14: Coastal Cycling Infrastructure Objective Specific Local Objective No.18:

“To promote the development of the Sutton to Sandycove Promenade and Cycleway as a component part of the National East Coast Trail Cycle Route and also the Dublin Bay trail from the boundary with Dublin City up to the boundary with Co. Wicklow. Any development proposal will protect and enhance public access to the coast where feasible.”

This project enhances this proposed route, providing a destination for users of the future cycleway.

- Policy Objective T31: Accessibility
- Policy Objective E17: Tourism and Recreation
- Policy Objective GIB9: Beaches and Bathing Areas

“It is a Policy Objective to promote the use of certain beaches and bathing areas for amenity and recreational use, and to continue to develop the County’s beaches and Bathing Areas in co-operation with local and environmental interest groups.”

This proposed development supports this objective.

- Policy Objective OSR5: Public Health, Open Space and Healthy Placemaking

“It is a Policy Objective to support the objectives of public health policy including Healthy Ireland and the National Physical Activity Plan (NPAP) 2016, to increase physical activity levels across the whole population thus creating a society, which facilities people whether at home, at work or at play to lead a more active way of life (consistent with RPO 9.16).”

This proposed development facilitates greater engagement with the sea through water sports and improves facilities for general beach users.

- Policy Objective OSR11: Water-Based Sports

“It is a Policy Objective to support and encourage water-based sports and maritime leisure activities along the coast."

- Specific Local Objective SLO No. 130

"To ensure that development within this objective area does not (i)have a significant negative impact on the environmental sensitivities in the area including those identified in the SEA Environmental Report, and/or (ii) does not significantly detract from the character of the area either visually or by generating traffic volumes which would necessitate road widening or other significant improvements."

The proposed development has been carefully sited and designed so that it does not have a significant negative impact on the environmental sensitivities in the area. The proposed development is single-storey and has a flat roof, which will use a pebble finish to relate to the surrounding beach material, reducing potential visual impacts from the beach and from the railway line. The proposed development is also not expected to generate substantial additional traffic.

The proposed development supports the above objectives.

Dún Laoghaire Rathdown Coastal Defence Strategy

DLRCC published its Coastal Defence Strategy Study in 2010, with a review carried out in 2023. The plan summarises its key points as:

- The identification of coastal defences, habitats, natural features, landscape and amenity issues.
- The identification of risk to people, property and natural environment from coastal erosion, cliff instability, wave action and tidal flooding.
- The determination of appropriate options and policies for each discrete length of coastline which are technically, environmentally and economically sound.
- The recommendation of the extent and type of future coastal defences.
- The provision of a prioritised programme of works.

While dealing with the key coastal processes of

- Water levels, including normal tide levels, extreme water levels and the potential impact of sea level rise.
- Waves, including normal and extreme offshore waves and normal and extreme nearshore waves, and the joint occurrence of extreme waves and extreme water levels.
- Wave modelling was used to estimate nearshore extreme waves and nearshore wave climate for use in outline design and in an assessment of sediment transport due to wave action.
- Tidal current modelling was used to assess potential sediment transport along the study coastline due to tidal currents and to assess the tidal currents for use in the assessment of wave driven sediment transport.
- Sediment transport. An assessment of sediment transport was undertaken in order to provide an understanding of the coastal process context in which the coastal defence strategy is developed.
- The assessment includes wave and tidal current driven transport and the likely sediment budget relating to the study shoreline.
- The type and condition of existing coastal defences was also assessed during the study and input into the risk assessment, and the evaluation of options.

Coastal Defence at Killiney Station

The area around Killiney Station has been identified as being at risk of cliff instability. Currently there is a low wall fronted by a footpath as a means of preventing erosion. A selection of options for this cliff instability has been provided to stabilise the cliff, with the preferred option being to utilise soil nailing and the spraying of concrete over the full height of the cliff face which have been assessed result in impacts limited to the area of the works.

Coastal Defence North of Killiney Station

The area north of Killiney station has a well-vegetated cliff with the appearance of stability, however this stability is uncertain. Localised repairs are required in this area, including the monitoring of the cliff slopes.

Conclusion

An SEA and NIS have been completed for the Dun Laoghaire Rathdown Coastal Defence Strategy. Mitigation measures have been put in place in regard to concrete, fuel, oil, and timing of works. Including these preventative measures, each project as part of the coastal defence strategy will be subject to future AA Screening, EcIA, and EIA.

Following the initial assessment of the coastal defence strategy, a review of the plan was conducted in 2023 to identify the number of the recommendations have been undertaken; further erosion and damage to the Dun Laoghaire coastline has been observed. At the time of this review in 2023, the coastal defences north of and around Killiney Station had not been carried out, however, surveys had shown that the areas had not significantly deteriorated since the initial assessment.

Overall, the Dun Laoghaire Rathdown Coastal Defence Strategy is not expected to result in cumulative negative impacts with the proposed development.

4.10.2 Projects

Dublin Offshore Windfarm Array

The Dublin Array expects to consist of between 39 and 50 turbines, with individual heights being approximately 270 and 310 meters. The turbines will be distributed between Kish and Bray banks approximately 10km east off the coastline of Sorrento Point in Dalkey, with a landfall in the green area in the Shanganagh Cliffs location. This will be facilitated by the construction of two onshore bays that allow for integration of cables to spread power throughout the country. It is expected that construction of the wind array is to begin in 2026.

The Dublin Offshore Windfarm Array project is not anticipated to contribute to cumulative or in-combination effects during the construction phase of the proposed development, as the Array is anticipated to begin construction approximately two years after the proposed development is complete. The Windfarm Array is not anticipated to contribute to cumulative or in-combination effects during the operational phase as the Array's landfall is far enough from the proposed site that no direct impacts are likely, and the operational nature of the developments are distinctly different.

The Dublin Array will follow the legislative requirements of the Maritime Area Planning Act 2021, and will be subject to an accompanying EIAR and Natura Impact Statement.

Irish Rail East Coast Railway Infrastructure Protection Project (ECRIPP)

The Irish Rail ECRIPP aims to address the ongoing issues of coastal erosion, wave overtopping and flooding along the railway infrastructure that have arisen due to the increase in frequency of storms as a result of climate change. These issues will be addressed through the implementation of a series of measures along the Dublin and Wicklow train route which include:

The objectives of this project include:

- Support the continued safe operation of rail services;
- Increase railway infrastructure future resilience to climate change;
- Provide improved and sustainable coastal protection works against predicted climate change effects such as sea level rise, coastal erosion, storm surges on the east coast railway corridor;
- Secure the railway line for future generations;
- Allow for the long-term efficient management and maintenance of the railway corridor;
- Support sustainable low carbon local, regional and international connectivity fostering a low carbon and climate resilient society;

Currently, the Irish Rail ECRIPP remains at a conceptual stage. Initial consultation with DLR internal stakeholders has been carried out, and the project is currently in Phase 2 Project Concept, Feasibility and Option Selection. Over the coming months (scheduled for August 2024) the project is to go into its first phase of public consultation. At present, however, there has yet to be an options report or subsequent buildability reports produced.

While the location for the CCA 2-3 protective measures is located in close proximity to the location of the proposed development, and the protective measures are forecast to be ongoing for ten years, the construction phase of the ECRIPP is not anticipated to contribute to cumulative or in-combination effects during the development of the Killiney Water facility. This is due to the construction of the ECRIPP not anticipated to begin until 2028, approximately three years after the completion of the proposed development.

The operational nature of the developments are distinctly different and are not anticipated to contribute to cumulative or in-combination effects during the operational phase.

Other Planning Applications

Recent developments or planning applications in the vicinity can have a cumulative impact with the proposed development. Larger development planning applications in the near vicinity from the last three years that have been granted permission were searched for. Applications for home extensions, internal alterations and retention are not considered. No such larger developments were found in the vicinity of the site.

The potential for cumulative impact of the plans and projects identified above are assessed in the Screening section below in combination with the currently proposed project.

5 Screening Assessment

5.1 Characteristics of the Proposed Development

To determine whether the characteristics of the proposed development are likely to have significant impacts on the environment, the following questions are answered in Table 5.1, following guidelines set out in the Office of the Planning Regulator (OPR) Practice Note PN02, Environmental Impact Assessment Screening (OPR, June 2021).

Table 5.1: Characteristics of the proposed development

Characteristics of the Proposed Development - Screening Questions	Comment
Could the scale (size or design) of the proposed development be considered significant (including any demolition works)?	The proposed development is a small one-storey building at a grassed area adjacent to Killiney Beach. The height of the building is below the railway embankment adjacent to it, and will not constrain views of the beach and the sea from the landward side. The development will use an existing beach access through a railway underbridge. No demolition is required.
Considered cumulatively with other adjacent existing or permitted projects, could the effects of the proposed development be considered significant?	There are currently no other proposed developments adjacent to the site. The existing car park will be used as part of the development and will remain in use in the operational phase.
Will the proposed development utilise a significant quantity of natural resources such as land, soil, water, materials or energy, especially any resources which are non-renewable or are in short supply?	In terms of land area, the proposed development is small, with much of the area already in use as a car park, and the remainder as a small grassy area. Grass is to be removed locally to make way for the proposed building. Excavated material will be reused as fill where appropriate, and the overall amount to be excavated is small. No water is required for the development. Therefore, there will not be a significant quantity of natural resources used.
Will the proposed development produce a significant quantity of waste?	No. Significant excavations are not required. Debris or rubbish generated during construction will be disposed of at appropriately licenced agents.
Will the proposed development create a significant amount or type of pollution?	No. Temporary air and noise pollution may occur during the construction phase, but the amount will not be significant and will be mitigated against by operational plans devised by the contractor.
Will the proposed development create a significant amount of nuisance?	No. During construction, some noise and vibration will be created, however this will be temporary and short-term. Construction works will be limited to certain times of day. Once operational, the proposed development will be used by people engaging in water-based activities, taking small groups out on the water. According to a DLRCC report, it is not anticipated that the new facility will result in a significant uplift in visitor numbers to the beach.
Will there be a risk of major accidents having regard to substances or technologies used?	No. The risks of this development will be those typically associated with normal construction practices.

	Construction machinery will be used during the construction phase and will be operated by licensed contractors, and following best practice guidance.
Will there be a risk of natural disasters which are relevant to the project, including those caused by climate change?	A Stage 1 FRA was prepared for the proposed development. The FRA found that the site is not at risk from coastal erosion, fluvial flooding, or pluvial flooding. A Wave Overtopping Assessment has been produced by JBA and is also included in the Part 8 documentation. Finished floor levels 150mm above hardstanding area are recommended to protect against stormwater failure. Risk of natural disasters to the project is therefore low. The DLR Coastal Defence Strategy has also shown that the part of the coast where the proposed development is to be situated is at low risk, with defence measures proposed to the south and north.
Will there be a risk to human health (for example due to water contamination or air pollution)?	No. Any potential risk to human health will be as a result of the construction phase of this project. All contractors will be subject to best practice methodologies and risk assessments in order to minimize any risk to human health.
Would any combination of the above factors be considered likely to have significant effects on the environment?	No. The development is relatively small scale. The environmental impacts are predictable and easily mitigated through the use of best practice guidelines during the construction phase. As such, significant impacts on the environment are not expected as a result of the proposed development.

Conclusion: The characteristics of the proposed development are not considered likely to result in a significant impact on the environment by virtue of its size, nature or operational activities.

Reasoning: The proposed development is relatively small in extent, and will use a small grassy area to construct a small one-storey building. Any environmental or noise impacts will be during the construction phase and not during operation of the development. Construction will not require significant use of natural resources, nor will it generate significant amounts of waste.

5.2 Location of the Proposed Development

The following questions are answered below in Table 5.2 to determine whether the geographical location of the proposed development can be considered ecologically or environmentally sensitive, following guidelines set out in the Office of the Planning Regulator (OPR) Practice Note PN02, Environmental Impact Assessment Screening (OPR, June 2021).

Table 5.2: Location of the proposed development

Location of the Proposed Development - Screening Questions	Comment
Is the proposed development located within, close to, or has it the potential to impact on any site specified in Article 103(3)(a)(v) of the Regulations: **- European Site (SAC or SPA)** **- NHA/pNHA** **- Designated Nature Reserve** **- Designated refuge for flora or fauna** **- Place, site or feature of ecological interest, the preservation, conservation, protection of which is an objective of a development plan or local area plan.**	No. The AA Screening for the site concluded that there are no Natura 2000 sites likely to be directly or indirectly impacted by the development. The EcIA for the site concluded that without mitigation measures in place, there would be potential for negative impacts on Dalkey Coastal Zone and Killiney Hill pNHA. The EcIA outlined mitigation measures which are summarised in Section 4.2.2 which when fully implemented will ensure that impacts to the pNHA will be neutral. The EcIA has also outlined measures for the protection of an Annex I habitat near to the site.
Are there any other areas on or around the location that are important or sensitive for reasons of their ecology e.g., wetlands, watercourses or other waterbodies (including riparian areas and river mouths), the coastal zone and the marine environment, mountains, forests or woodlands, that could be affected by the project?	No. The EcIA considered all designated sites near the proposed development, as well as features that are not designated but may be sensitive. Following the implementation of mitigation measures outlined in the EcIA, and summarised in Section 4.2.2 and 4.4.1, no significant impacts on other areas are likely.
Is the proposal likely to be highly visible to many people? Are there any areas or features of high landscape or scenic value on or around the location, or are there any routes or facilities that are used by the public for recreation or other facilities which could be affected by the proposal?	The proposal will not be highly visible from the landward side, as the railway embankment will act to screen the building. The proposed development will be visible from the beach and the water off the beach, and will also be visible from the railway line. The proposed pebble finish on the roof, to relate to the beach, will reduce the visual impact of the proposed development from the railway. The design is low with a flat roof and will not significantly impact views on the beach.
Has the proposed development the potential to significantly impact any locations which contain important, high quality, or scarce resources, e.g., groundwater, surface waters, forestry, agriculture, fisheries, tourism, or minerals?	No. The proposed development will not impact the relative abundance, availability, or regenerative capacity of natural resources.
Has the proposed development the potential to impact directly or indirectly on any features of historic or cultural importance, including protected structures or Recorded	No. There is one archaeological feature whose Zone of Notification is partially within the site boundary (Battery No. 8, DU026-012). Notification will be given to the National Monuments Service prior to works commencing, and an archaeologist

Monuments and Places of Archaeological Interest?	may be required on site during works. However, impacts are not likely given the nature of the works and the position of the site on the far side of the railway embankment to the feature.
Is the site located in an area susceptible to subsidence, landslides, erosion, or flooding which could cause the proposal to present environmental problems?	A Flood Risk Assessment (FRA) and Wave Overtopping Assessment have been carried out for the proposed development. The FRA found that the proposed development is not at risk of pluvial or fluvial flooding, and does not increase the risk of flooding. Wave overtopping is a risk at the site, but design considerations have been included in the FRA based on the Wave Overtopping Assessment which will reduce the risks of coastal flooding. Non-return valves and sealed manholes will also be utilised at the development. The proposed development is not at risk of coastal erosion, as found by the Stage 1 FRA.
Are there any areas within or around the location which are already subject to pollution or environmental damage, and where there has already been a failure in environmental standards that could be affected by the proposal e.g., the status of water bodies under the Water Framework Directive?	No. The waterbodies offshore are either High or Good Status.
Are there areas within or around the location which are densely populated or built-up, or occupied by sensitive land uses e.g., hospitals, schools, places of worship, community facilities that could be affected by the proposal?	No. The proposed development is on the seaward side of the railway line, and is adjacent to open space along the beach and green areas.
Are there any additional considerations that are specific to this location?	The proposed development is adjacent to the railway line, with overhead lines along the railway and an underpass beneath it as the main access point. Consultation will be required with Iarnród Eireann prior to construction.

Conclusion: The location of the proposed development is not considered likely to result in a significant impact on the environment.

Reasoning: The proposed development is situated at Killiney Beach at a grassy area beside an existing car park. There are no Natura 2000 sites or designated ecological sites which will be impacted by the proposed development. The FRA found that the site is not at high risk of flooding, and design considerations to address the risk of wave overtopping are included in the FRA.

5.3 Characteristics of Potential Impacts

The following questions were answered in Table 5.3, following guidelines set out in the Office of the Planning Regulator (OPR) Practice Note PN02, Environmental Impact Assessment Screening (OPR, June 2021)), to determine whether the environmental impacts of the development can be considered significant.

Table 5.3: Characteristics of potential impacts

Types and Characteristics of Potential Impacts - Screening Questions		
If relevant, briefly describe the characteristics and magnitude of the potential impacts under the headings below.		Is this likely to result in significant effects on the environment, with mitigation measures in place if applicable?
Population and Human Health:		
During construction, temporary impacts to public access at Killiney Beach and the car park at this point are likely. These will be temporary, and other access points to the beach are available. **Positive impacts are likely in the operational phase, with improved recreational facilities available for people engaging in watersports.**		No. Construction stage impacts to population and human health are typical of such developments, and easily mitigated against by operational plans put in place by the appointed contractor.
Biodiversity:		
The AA Screening for the proposed development found that there is no potential for significant impacts on any Natura 2000 sites. **The EcIA for the proposed development found that, with no mitigation measures in place, there is potential for impacts on several habitats and species, and on Dalkey Coastal Zone and Killiney Hill pNHA.**		The EcIA includes mitigation measures which will reduce potential impacts on ecological receptors to neutral. In summary, these include: - General construction stage mitigation, such as the preparation of a Construction Environmental Management Plan (CEMP), adherence to best practice environmental guidance, and preparation of construction method statements to be submitted to DLRCC prior to site works commencing; - Measures pertaining to the location and setup of the site compound. The site compound is to be situated in the DART car park to the west of the site, with a secondary works compound north of the site, within the site's car park; - Water quality measures for the prevention of watercourse pollution, spill prevention, and safe concrete management; - Adoption of a surface water plan including appropriate barrier controls to prevent any polluted surface water or silt discharge from the site reaching adjacent marine habitats. - General avoidance measures and noise and vibration limits;

		- Construction site lighting design, including for the protection of bats using the area; - Remedial grassland sowing in areas damaged by machinery crossing post-construction.
Land and Soil:		
The area of land to be taken for the building is not significant. Construction will be at or near the surface, with excavation only needed for laying of services.		No. Where possible, excavated material will be used as fill elsewhere in the project. Material not required on site will be exported as a waste to an appropriate facility. The amount is not expected to be significant.
Water:		
During construction, there could be emissions of pollutants or sediment to surface waterbodies. Interactions with groundwater are not expected to be significant. **The FRA prepared for the proposed development found that the main potential source of flooding is wave overtopping during extreme coastal flooding events. The site is in Flood Zone C.** **Coastal erosion was also considered in the FRA and found not to be a significant risk to the site in the future.**		No. Mitigation measures outlined in the EcIA and summarised in Section 4.4.1 above will ensure that impacts to surface water and groundwater are not significant. The risk of wave overtopping, particularly in climate change scenarios, means that design considerations as outlined in the FRA will be put into place. To address the risk from overtopping and the residual risk of stormwater system failure, ACO drains with the aim of minimising surface water from entering the building will be installed.
Air and Climate:		
There will be temporary slight impacts to air and climate during construction due to the operation of machinery and transport of materials. **Once operational, the impact on air and climate will be neutral or slight positive due to the inclusion of solar PV panels on the roof of the building.**		No. Impacts to air and climate during construction and operation are not considered significant.
Material Assets:		
During construction, impacts to material assets are possible if not managed properly. The underbridge to used to access the site is constrained for space, while some construction materials will need to be craned over the railway. **Once operational, the development is not expected to create a significant amount of additional visitors to the beach. The site is served by Killiney DART station, and the car park adjacent to the site and a larger car park further south at Killiney DART station are available.**		During construction, the contractors will be aware of the underbridge restrictions, including the gas main running beneath the railway. A wayleave license will be sought from Iarnród Eireann for laying of services, and an agreement with Iarnród Eireann will be sought prior to crane operations. Once operational, significant impacts are not likely on material assets. The site is well served by public transport and car parking, and the facility will not increase visitor numbers significantly.

Cultural Heritage:		
The proposed development is within the Zone of Notification of one archaeological feature. However, due to the lack of deep excavations and the location of the site on the other side of the railway embankment to the feature, direct impacts are not expected.		No. Impacts to cultural heritage are not expected, due to the nature and location of the works.
Landscape and Visual Amenity:		
No protected landscapes or protected views are near the development. The proposed building is one-storey and will not intrude on views of the sea from houses or the railway line once operational. Typical construction stage impacts to visual amenity will occur, but will be temporary.		No. Impacts to landscape and visual amenity during construction will be temporary and partially mitigated by the contractor's operating plans, and will not be significant. Once operational, no impacts to landscape or visual amenity are expected.
Cumulative Effects:		
The DLRCC CDP 2022-2028 contains objectives to support and improve water sports facilities, public health, open spaces, and beaches.		No. The proposed development contributes to the objectives of the DLRCC CDP 2022-2028.
Transboundary Effects:		
Transboundary effects are not expected.		No.

Conclusions: The characteristics of the potential impacts as a result of the proposed development are unlikely to be significant and are easily mitigated.

Reasoning: The potential impacts from this development would be primarily during the construction phase. It is easy to predict these impacts and mitigate them through the use of standard environmental procedures.

6 Conclusions and Recommendations

The purpose of this report was to identify whether there is a need under The Planning and Development Act 2000, as amended, for an EIAR for the proposed Killiney Beach watersports facility.

It was determined that the proposed development does not fall under Schedule 5 (Parts 1 and 2) of the Act. As such, an EIAR has not been automatically triggered. To determine whether the development may fall under the category of Sub-threshold development, with the potential to give rise to significant environmental effects, a screening exercise was undertaken.

During construction, typical impacts such as noise, dust, traffic disruption, and the generation of small amounts of waste are to be expected. These are typical construction phase impacts, and will be mitigated against by environmental operating plans devised by the on-site contractor, following best practice guidance.

An AA Screening Report completed by JBA for the proposed development determined that no likely significant impacts are expected as a result of the proposed development. This is due to the small size of the development and the distance and lack of pathways to Natura 2000 sites.

The EcIA for the proposed development outlines mitigation measures which when fully implemented will ensure that impacts on other ecological receptors are neutral. These mitigation measures will also ensure that no significant impacts on surface or groundwater occur.

The FRA for the proposed development outlines design considerations which will be put in place in response to the risk of wave overtopping at the site.

Once operational, the proposed development will be low in environmental impact. A long-term positive impact will likely result from the proposed development in terms of population and human health, due to the improvement in amenity for water users in the area.

It has been concluded that the proposed development does not fall under the category of sub-threshold development, and thus an EIAR is not required.

The overall conclusion is based on the details of the scheme available at the time of preparation of this report. If the extent of the scheme or the construction methods for the scheme are changed then the EIA Screening assessment should be reviewed.

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