

PROPOSED LARGE-SCALE RESIDENTIAL DEVELOPMENT, AT BOHERBOY,
SAGGART, CO. DUBLIN

EIAR Volume 1 Non-Technical Summary

Evvara Developments Ltd and Kelland Homes Ltd

Date: 05/12/2025



CONTENTS

| | | |
|----|--|----|
| 1 | INTRODUCTION AND BACKGROUND..... | 3 |
| 2 | PROPOSED DEVELOPMENT | 6 |
| 3 | PLANNING CONTEXT..... | 12 |
| 4 | POPULATION AND HUMAN HEALTH | 13 |
| 5 | BIODIVERSITY | 15 |
| 6 | LAND AND SOILS | 19 |
| 7 | HYDROLOGY AND HYDROGEOLOGY..... | 21 |
| 8 | AIR QUALITY..... | 24 |
| 9 | CLIMATE..... | 26 |
| 10 | NOISE AND VIBRATION | 32 |
| 11 | LANDSCAPE AND VISUAL | 36 |
| 12 | ARCHAEOLOGY AND CULTURAL HERITAGE..... | 38 |
| 13 | MATERIAL ASSETS: WASTE AND UTILITIES | 39 |
| 14 | MATERIAL ASSETS: TRAFFIC AND TRANSPORTATION..... | 42 |
| 15 | RISK MANAGEMENT | 44 |
| 16 | INTERACTIONS | 45 |
| 17 | MITIGATION AND MONITORING | 46 |

LIST OF FIGURES

| | |
|---|----|
| Figure 1 - Site Location | 7 |
| Figure 2 - Boherboy LRD Design Evolution | 11 |
| Figure 3 - Construction Categories Greenhouse Gas Emissions tCO ₂ e..... | 27 |
| Figure 4 - Site Location, Measurement Locations L1, A1-A3, and Noise Sensitive Locations (NSLs) 1-7 | 32 |

LIST OF TABLES

| | |
|---|----|
| Table 1 - EIAR Project Team | 3 |
| Table 2 - Climate Change Vulnerability Assessment/Climate Screening | 27 |
| Table 3 - Noise Sensitive Locations | 33 |
| Table 4 - Summary of Construction Phase Effects Post Mitigation | 34 |
| Table 5 - Summary of Operational Phase Effects Post Mitigation..... | 34 |
| Table 6 - Summary of Construction Phase Effects Post Mitigation | 35 |
| Table 7 - Summary of Operational Phase Effects Post Mitigation..... | 35 |

1 INTRODUCTION AND BACKGROUND

Environmental Impact Assessment (EIA) is a process of identifying and assessing the likely environmental, social and economic effects of a Proposed Development project, considering both negative and positive effects. EIAs also involve finding ways to reduce negative effects and further improve beneficial effects. It ensures that planning decisions are made taking into account the environmental effects and with engagement from stakeholders.

This EIAR presents the EIA process which has been undertaken in line with the Planning and Development Regulations 2001.

The structure of the environmental impact assessment that accompanies the planning application is set out in the following three volumes:

- Volume 1: Non-technical Summary;
- Volume 2: Environmental Impact Assessment Report; and
- Volume 3: Supporting technical Appendices.

Purpose of the Non-Technical Summary

This Non-Technical Summary is a requirement under the European Union Directive 2014/52/EU (the EIA Directive) for all projects that have been subject to an EIA.

This EIAR describes the Proposed Development, the EIA process and summarises the likely significant environmental effects that would be caused by the Proposed Development and the associated mitigation measures arising as a result of the Proposed Development.

The Environmental Impact Assessment Process

An EIAR has been carried out on behalf of the Applicant based on desktop studies, site visits, surveys and site-specific investigations.

The EIAR outlines any necessary mitigation and monitoring measures required to avoid, reduce or offset any potentially significant effects identified.

Following the consideration of mitigation measures, the EIAR will describe any residual effects that may occur from the Proposed Development.

The EIAR and accompanying planning application are being submitted for consideration to South Dublin County Council (SDCC), which is the Competent Authority for the Proposed Development.

The EIAR authoring team is set out in Table 1.

Table 1 - EIAR Project Team

| No. | Chapter | Consultant Name and address | Specialist Area |
|-----|---|---|--|
| 1 | Introduction and Methodology | DNV, 3D Core C, The Plaza, Park West, D12F9T Gráinne Ryan | Multidisciplinary Planning and Environmental Consultants |
| 2 | Description of the Proposed Development and Assessment of Alternatives | DNV, 3D Core C, The Plaza, Park West, D12F9T Gráinne Ryan | Multidisciplinary Planning and Environmental Consultants |

| No. | Chapter | Consultant Name and address | Specialist Area |
|-----|---|--|--|
| 3 | Planning and Development Context | DNV, 3D Core C, The Plaza, Park West, D12F9TN Rachel Redmond | Multidisciplinary Planning and Environmental Consultants |
| 4 | Population and Human Health | DNV, 3D Core C, The Plaza, Park West, D12F9TN Rachel Redmond | Multidisciplinary Planning and Environmental Consultants |
| 5 | Biodiversity | Scott Cawley 4-6 Riverwalk, Citywest Business Campus, Dublin 24, D24 DCW0 Jamie Dempsey | Ecological Consultancy |
| 6 | Land and Soils | DNV, 3D Core C, The Plaza, Park West, D12F9TN Nuria Manzanos Gareth Carroll | Multidisciplinary Planning and Environmental Consultants |
| 7 | Hydrology and Hydrogeology | DNV, 3D Core C, The Plaza, Park West, D12F9TN Nuria Manzanos Gareth Carroll | |
| 8 | Air Quality | AONA Environmental Consulting, Unit 8A Northwest Business Park, Sligo, F91 E285 Mervyn Keegan | Air Quality Consultants |
| 9 | Climate | DNV, 3D Core C, The Plaza, Park West, D12F9TN Aoife Gillen Milo Reddaway | Multidisciplinary Planning and Environmental Consultants |
| 10 | Noise and Vibration | Wave Dynamics, Unit 202, Nesta Business Centre, Old Airport Rd, Santry, Dublin, D09 HP96 Shannon Doherty | Acoustic Consultancy Services |
| 11 | Landscape and Visual Impact Assessment | DNV, 3D Core C, The Plaza, Park West, D12F9TN Dara Hilliard | Multidisciplinary Planning and Environmental Consultants |
| 12 | Archaeology and Cultural Heritage | IAC Archaeology, Unit G1, Network Enterprise Park, Kilcoole, Co. Wicklow A63 KT32 Lucy Bagshaw | Archaeology and Heritage Consultancy |
| 13 | Material Assets – Waste and Utilities | DNV, 3D Core C, The Plaza, Park West, D12F9TN | Multidisciplinary Planning and Environmental Consultants |

| No. | Chapter | Consultant Name and address | Specialist Area |
|------------|--|--|--|
| | | Aisling Jones | |
| 14 | Material Assets – Traffic and Transport | Pinnacle, Grosvenor Court, 67A Patrick Street, Dun Laoghaire, Co. Dublin Ronan Kearns | Engineering Consultancy |
| 15 | Risk Management | DNV, 3D Core C, The Plaza, Park West, D12F9TN Lakshmi Priya Mohan | Multi-disciplinary environmental, planning and heritage resource management consultancy |
| 16 | Interactions | DNV, 3D Core C, The Plaza, Park West, D12F9TN Aisling Jones | Multidisciplinary Planning and Environmental Consultants |
| 17 | Mitigation and Monitoring | DNV, 3D Core C, The Plaza, Park West, D12F9TN Aisling Jones | Multidisciplinary Planning and Environmental Consultants |
| NTS | Non-Technical Summary | Input from all above consultants and compiled by DNV | Multidisciplinary Planning and Environmental Consultants |
| App | Appendices | | |

2 PROPOSED DEVELOPMENT

Kelland Homes Ltd. and Evara Developments Ltd. wish to apply for permission for a Large-scale Residential Development (LRD) on a site located at Boherboy, Saggart, County Dublin. To the immediate north of the site is the Carrigmore residential estate, to the west are agricultural lands and a single dwelling, to the east is the Corbally residential estate and Carrigmore Park, while to the south is the Boherboy Road.

The Proposed Development consists of 611 no. dwellings, comprised of 306 no. 2, 3, 4 & 4-5 bed, 2 & 3 storey, detached, semi-detached & terraced houses, 133 no. 1, 2 & 3 bed duplex units in 12 no. 2-3 storey blocks, and 172 no. 1, 2 & 3 bed apartments in 5 no. buildings ranging in height from 4-5 & 5 storeys. The Proposed Development also includes a 2-storey crèche (c.630m²).

Access to the development will be via one no. new vehicular access point from the Boherboy Road, along with new vehicular connections to adjoining developments at Corbally Heath to the east and Carrigmore Green to the north. Ten no. houses in the south-east part of the site will be accessed from Corbally Glade to the east. The Proposed Development includes for pedestrian and cyclist connections throughout the Proposed Development and accesses into adjoining lands at Carrigmore Park, Corbally Heath and Corbally Glade to the east and Carrigmore Green to the north.

Private amenity space for the residential units is provided in the form of rear gardens for houses and ground floor terraces / upper floor balconies for apartments and duplex units. The Proposed Development provides for a total of c. 2.3Ha of public open space, and c. 4,750sq.m of communal open space associated with Proposed Development.

The Proposed Development provides for (i) all associated site development works above and below ground, including surface water attenuation & an underground foul sewerage pumping station at the northern end of the site, (ii) public open spaces (c. 2.3Ha), (iii) communal open spaces (c. 4,750sq.m), (iv) hard & soft landscaping and boundary treatments, (v) surface car parking (861 no. car parking spaces), (vi) bicycle parking (711 no. bicycle parking spaces), (vii) bin & bicycle storage, (viii) diversion of all existing overhead ESB lines underground, (ix) public lighting, and (x), plant / PV panels (M&E), utility services & 8 no. ESB sub-stations, all on an overall application site area of c.18.7Hha. In accordance with the South Dublin County Development Plan (2022-2028), an area of c.1.03Ha within the site is reserved as a future school site.

Figure 2-1 shows the site location.

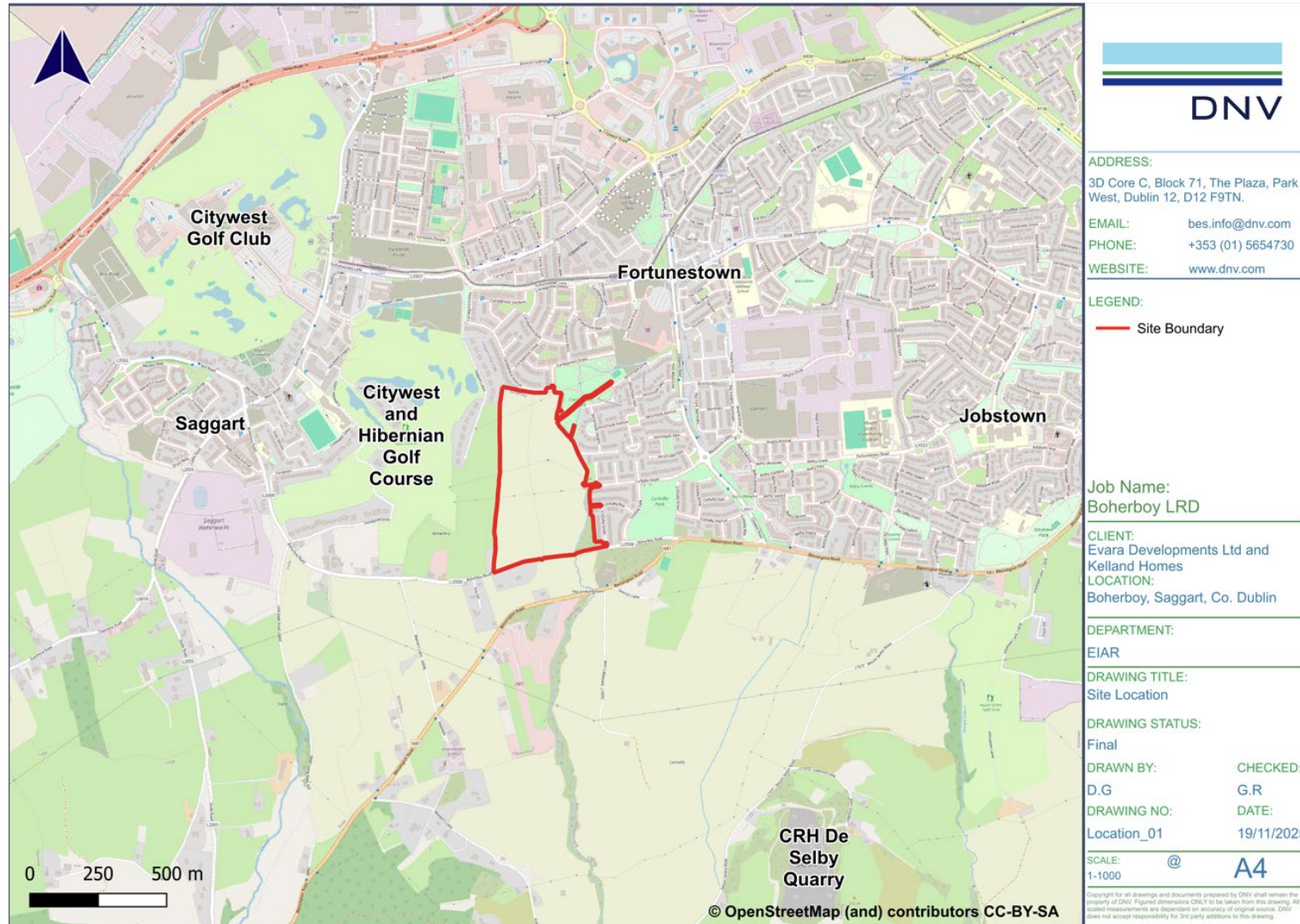


Figure 1 - Site Location

Construction Phase

Construction will be completed in three phases, provisionally planned as commencing in 2026 and will have a 60-month construction programme.

Working hours for the Construction Phase will be between 08.00 and 17.00 Monday to Friday. Special construction operations may occasionally need to be carried out outside typical working hours in order to minimise disruption to the surrounding area.

A Construction Environmental Management Plan (CEMP) has been prepared by DNV (2025a). The appointed Contractor will prepare a detailed final CEMP, including detailed construction phasing.

Operational Phase

Upon completion, the Proposed Development will consist of 611 No. residential apartments, a crèche, along with associated public realm and landscaping works. The development will be connected to existing municipal services and infrastructure and managed in accordance with standard residential and commercial practices. Operational activities will primarily include day-to-day residential use, with associated traffic and pedestrian movement typical of an urban setting. No significant environmental impacts or operational risks are anticipated.

Alternatives

Consideration of reasonable alternatives is an important part of the environmental impact assessment process and is necessary to consider the likely environmental effects as a result of a range of development plans for the site within the restrictions in place by environmental and planning conditions.

Alternative Locations

Three possible alternatives have been considered in terms of alternative locations for the Proposed Development.

1. The Do-Nothing Alternative
2. Develop another greenfield site
3. Purchase another existing site with current planning permission for a similar development

The Do-Nothing Alternative would see the site remain as agricultural lands over an area of 18.6ha. A “do-nothing” scenario is considered to represent an inappropriate, unsustainable and inefficient use of these residentially zoned lands.

For another greenfield site to be developed, a similar impact would arise by siting a residential development with a crèche at this scale on such a site. The existing site of the Proposed Development lies within lands that have already been zoned for residential development and are currently underutilised in that respect. The entirety of the subject site is currently zoned objective “RES-N”: “To provide for new residential communities in accordance with approved area plans” in the existing South Dublin County Development Plan 2022-2028 (CDP). The Proposed Development site offers the opportunity to deliver compact growth in line with national policy, the South Dublin CDP 2022-2028.

The site is already in the ownership of the Applicants, hence purchasing another existing site with current planning permission was discounted due to the unlikely availability of such a site on the

market and the levels of capital that would be required to purchase such a site. Additionally, the site is well located, served by public transport and is within a short distance of key employment locations such as Citywest, Saggart and Rathcoole, with links to the N7. In terms of current transport options, the site is not directly serviced by Dublin Bus but the No.65B and 77A both serve the wider Citywest and South Dublin area. The Fortunestown Luas Stop is located approximately 0.6km to the north of the Proposed Development site, offering a high frequency, high-capacity public transport service with direct links to Dublin City Centre. The N7 national road is located 3.8km from the site also connects to the M50 as well as Kildare and the southwest of the country.

Having regard to the above alternatives, the selected location is considered to be the most suitable location for the Proposed Development.

Alternative Uses

The entirety of the subject site is currently zoned objective “RES-N”: “To provide for new residential communities in accordance with approved area plans” in the existing South Dublin County Development Plan 2022-2028 (CDP). The Proposed Development site offers the opportunity to deliver compact growth in line with national policy, the South Dublin CDP 2022-2028.

As the Proposed Development consists of residential units and a crèche, the Proposed Development type a suitable land use according to the zoning objectives of the CDP.

If the Proposed Development is not advanced, the site will remain as greenfield parcel of land. In light of the zoning objectives for the site of the Proposed Development, as well as the current demand for high quality residential units in Saggart and Citywest, other land uses on site would not be considered appropriate alternatives or would not be in accordance with the planning policy context pertaining to the lands.

The lack of housing supply in Ireland is a well-documented and ongoing issue. The Proposed Development incorporates the construction of 611 no. residential units which will service the demand for housing in the area. As such this is considered an appropriate use of the land.

Due to the nature of the current proposal, i.e., the development of residential dwellings and supporting community facilities including a childcare facility it was not considered necessary to consider alternative uses for the Proposed Development.

Alternative Design and Layouts

Both the context and approach to the design and layout of the site of the Proposed Development, and the emerging final design have been subject to consultation with South Dublin County Council Planning Department under Section 32D of the Planning and Development Act, 2000 (as amended). A Large-Scale Residential Development Opinion meeting was held on 20 May 2025 with members of South Dublin County Council, the Applicant, and the design team in attendance. An Opinion was issued from South Dublin County Council on 17 June 2025.

The Proposed Development has been prepared in accordance with the requirements of relevant planning policies, including:

- National Planning Framework;
- Regional Spatial and Economic Strategy for the Eastern and Midland Region (2020);
- Relevant Section 28 Guidelines, including:

- o Urban Development and Building Heights Guidelines (2018) ; and
- o Planning Design Standards for Apartments - Guidelines for Planning Authorities, 2023; and
- South Dublin County Development Plan 2022–2028.

Although the LRD Opinion from South Dublin County Council was issued prior to the publication of the Planning Design Standards for Apartments - Guidelines for Planning Authorities (2025) on 8 July 2025, the Proposed Development has since been reviewed in light of the updated guidelines. Following this review, it is confirmed that the proposed design remains in compliance with the relevant standards referred to therein.

Alternative designs for the Proposed Development were considered and developed by the architects during the design development process, with input from the overall project team. This involved a constantly evolving design whereby different solutions were tested to establish the optimum design.

The evolving layout was shaped by considerations such as site permeability, housing mix, public open space distribution, urban form, and integration with green and blue infrastructure. Revisions incorporated feedback from the Planning Authority and specialist inputs, including landscape, transport, and ecology. The result is a scheme that balances density and amenity, responds to the site's physical characteristics, and aligns with broader planning policy objectives.

The key alternatives and design decisions taken during the development of the proposal are detailed in the Architectural Design Statement prepared by MCORM and Davey Smith (2025), submitted as part of this application and summarised hereunder.

As detailed on the attached diagram entitled “Design Evolution”, the design evolved and changed in response to updated guidance, the publication of the Compact Settlement Guidelines, feedback received from the local authorities as part of the LRD and SHD processes and a refocused incentive to provide above ground nature based attenuation and to maintain the natural biodiversity on the site.

These are detailed below and refer to the numbers on Design Evolution diagram;

1. Open spaces expanded to allow sufficient space for above ground nature-based attenuation solutions throughout the site, housing cells reorganised.
2. Apartment block introduced for additional density.
3. Greater setbacks provided along Corbally Stream. All services & footpaths removed from riparian corridor.
4. Roads layout rationalised with roads removed where possible to allow additional space for soft landscaping.
5. Greater setbacks provided along central hedgerow, housing cells reorganised.
6. Soft landscaped edge provided to Boherboy Road with greater hedgerow retention.
7. Low/Medium density housing replaced with medium density apartments.
8. 10metre setback from centre of hedge along Western boundary to encourage biodiversity.
9. Road layout amended to increase POS areas.

10. Road layout amended to remove cul de sacs.
11. Road layout amended to provide cohesive central open space free from cars.
12. Landscaping design amended to introduce “playful streets”.
13. Landscaping revised to increase accessible areas for use by all.
14. Hedgerow along Boherboy retained. No upgrade works to Boherboy Road to encourage biodiversity.
15. Segregated cycle path introduced to provide safer cycle routes.

Design Evolution
Boherboy LRD

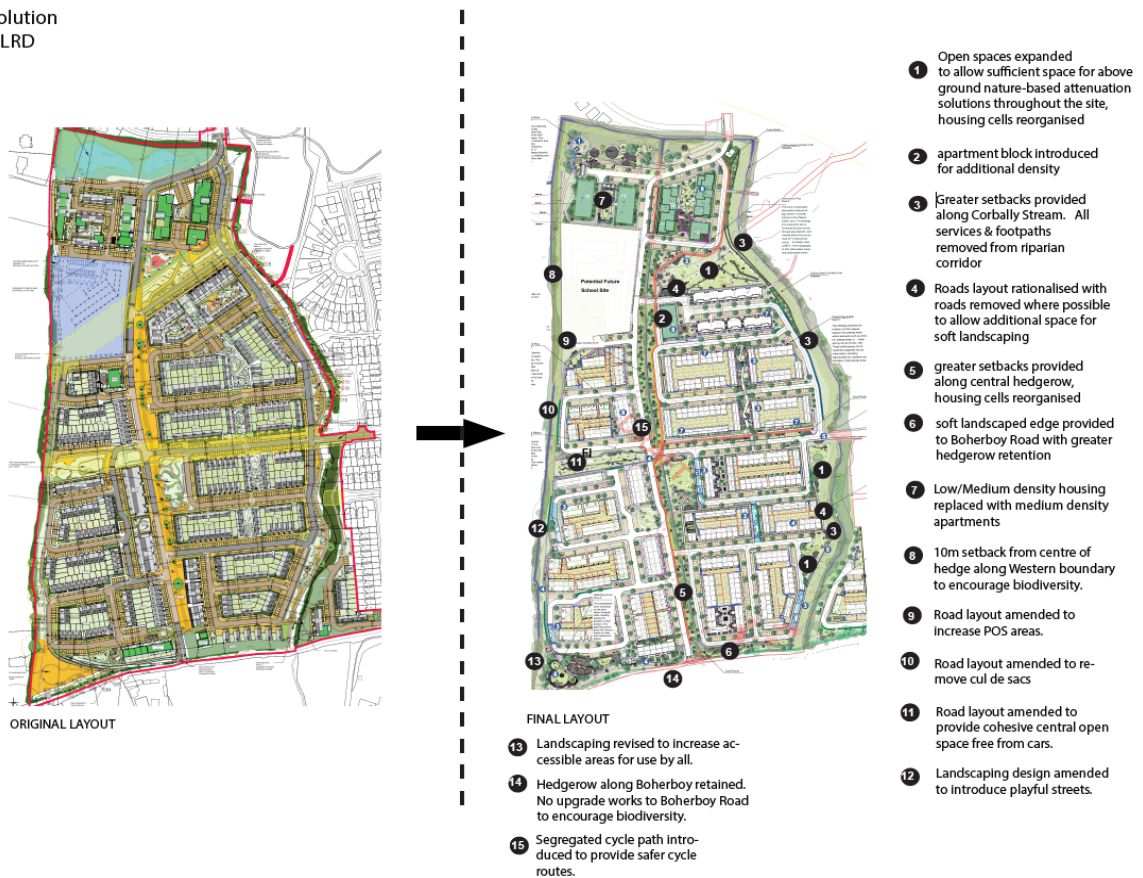


Figure 2 - Boherboy LRD Design Evolution

Alternative Process

Due to the nature of the Proposed Development (i.e mixed use/primarily residential) where the planning application will be submitted to South Dublin County Council it was not considered necessary to consider alternative processes for the Proposed Development.

3 PLANNING CONTEXT

This chapter outlines the legislative and policy framework relevant to the proposed Boherboy Large Residential Development (LRD) in County Dublin. The assessment considers European, national, regional, and local planning policies and objectives to ensure the Proposed Development aligns with statutory requirements and best practice.

At the European level, the Environmental Impact Assessment (EIA) Directive requires that projects likely to have significant environmental effects are subject to a thorough assessment before proceeding. Irish legislation, including the Planning and Development Act 2000 (as amended) and associated regulations, transposes these requirements into national law. The Proposed Development, due to its scale and nature, falls within the thresholds necessitating the preparation of an Environmental Impact Assessment Report (EIAR).

Nationally, the project supports the objectives of the National Planning Framework (NPF), which seeks to promote compact growth, sustainable development, and the efficient use of infrastructure. The development is consistent with key national policies, including the recently published “Homes, Building Communities: An Action Plan on Housing Supply and Targeting Homelessness, 2025–2030”, which aims to deliver 300,000 new homes by 2030 and addresses housing supply, affordability, and homelessness.

Regionally, the development supports the Eastern and Midland Regional Assembly’s Regional Spatial and Economic Strategy, which prioritises compact growth and the efficient use of existing urban areas, particularly in Dublin and its suburbs.

Locally, the site is zoned for new residential communities under the South Dublin County Development Plan 2022–2028. The plan sets out policies to ensure high-quality, sustainable, and well-designed residential development, with a focus on energy efficiency, placemaking, and integration with existing communities. The Proposed Development is in accordance with these objectives and is located in an area well served by public transport and local amenities.

In conclusion, the Proposed Development is consistent with the relevant European, national, regional, and local planning policies and objectives, supporting the proper planning and sustainable development of the area.

4 POPULATION AND HUMAN HEALTH

Introduction

This chapter assesses the potential effects of the proposed Boherboy LRD on population and human health. The evaluation considers both direct and indirect impacts on those living, working, and visiting the vicinity of the site. The assessment draws upon recent census data, relevant guidance, and professional judgement to identify key populations and potential health determinants. The study area primarily encompasses the Saggart Electoral Division, with a partial section of the site included within Tallaght-Jobstown Electoral Division.

Construction Phase

During the construction phase, the principal effects on population and human health are anticipated to be short-term and generally minor in nature. The creation of construction-related employment will provide a temporary, positive economic impact at both local and county levels. However, due to the mobile nature of the construction workforce, the effect on local population demographics is expected to be imperceptible.

Potential adverse effects during construction include temporary reductions in air quality due to dust and vehicle emissions, increased noise and vibration, and minor traffic congestion. These impacts are expected to be short-term and slight, with the most sensitive receptors being nearby residential properties. There is also potential for minor, short-term impacts on water quality from construction activities, though these are not anticipated to be significant with appropriate management in place. Visual and landscape effects will be temporary and will diminish with distance from the site.

Operational Phase

Upon completion, the operational phase of the development will introduce a large number of new residential units, catering to a diverse population including families, older persons, and young couples. This will result in a long-term, positive effect on local population and human health, particularly in the context of housing demand.

The operational phase is not expected to introduce significant sources of contamination or adverse health effects. Water quality will be protected through established mitigation measures, and air quality impacts from increased traffic are predicted to be within regulatory standards, resulting in no significant long-term effects. Noise levels associated with residential and traffic activity are anticipated to be consistent with the existing environment, with no significant adverse effects expected. Visual impacts will be softened over time as landscaping matures and the development integrates with its surroundings.

Mitigation Measures

No specific mitigation measures are required in relation to population and human health, given the absence of direct significant effects. However, mitigation measures addressing water quality, air quality, noise and vibration, traffic, and landscape and visual impacts are detailed in the respective chapters of the EIAR. These measures include the implementation of a Construction Environmental Management Plan (CEMP), adherence to best practice guidelines, and ongoing monitoring where necessary.

Residual Effects

Following the implementation of all recommended mitigation measures across the EIAR and CEMP, the residual effects of the Proposed Development on population and human health are predicted to be not significant. During the construction phase, any negative effects such as noise, air quality, and traffic impacts will be slight and short-term. The operational phase is expected to result in neutral

to positive long-term effects, with no significant adverse impacts anticipated for the local population or human health.

5 BIODIVERSITY

Introduction

The biodiversity assessment considered the potential impacts of the Proposed Development on biodiversity. The Assessment involved a review of available published data to identify any features of ecological value and field surveys of habitats, bats, terrestrial mammals, and wintering and breeding birds, as well as aquatic surveys for white-clawed crayfish. A small stream risk score survey (SSRS) was also undertaken.

The Existing and Receiving Environment (Baseline Situation)

The Proposed Development site is located in the townland of Boherboy in Saggart, Co. Dublin. The lands are situated immediately to the south of the Carrigmore residential estate, west of Corbally residential estate and east of agricultural lands. The Boherboy Road forms the southern boundary of the site.

The Proposed Development site contains habitats predominantly found in an agricultural setting comprising two fields grazed by cattle with discrete areas of wet grassland in both fields as well as patches of scrub, and a small area of marsh in the eastern field. The two agricultural fields are divided by a hedgerow and stream known as the Cooldown, while the Corbally Stream abounds the northern and part of the eastern boundaries, and the Coldwater stream runs along the western boundary. A relatively small patch of rough grassland occurs in the southeast of the lands, east of the Corbally Stream. The Corbally, Cooldown and Coldwater streams are tributaries of the Camac River, which flows into the River Liffey, that ultimately connects the Proposed Development site to the wider surface waterbody network (i.e. Dublin Bay and the Irish Sea) downstream.

The Proposed Development site does not overlap with any European sites. The next closest European designated site is Glenasmole Valley SAC and Wicklow Mountains SAC, which are located c. 4.17km and c. 5.3km southeast of the Proposed Development site, respectively. Five European sites lie downstream from the Proposed Development site within Dublin Bay: South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC, North Bull Island SPA, North-west Irish Sea SPA and Rockabill to Dalkey Island SAC. All of the sites within Dublin Bay lie at a distance of greater than 15km from the Proposed Development site.

Potential Impacts and Mitigation Measures

The potential impacts on biodiversity assessed for the construction phase include:

- European sites - the potential impacts associated with the Proposed Development do not have the potential to affect the receiving environment within European sites and, consequently, do not have the potential to affect the conservation objectives supporting the Qualifying Interests (QI) or Special Conservation Interests (SCI) of any European sites; either alone or in combination with any other plans or projects. A potential source-pathway-receptor link through hydrological means has identified connectivity via the surface water and foul water networks from the Proposed Development site and Dublin Bay European sites. However, effects on European sites in Dublin Bay, have been excluded for the following reasons:
 - Results of the conceptual site model (CSM) carried out by DNV¹ and which informs the AA screening report, indicate that surface run-off from the Proposed Development, during both construction and operational phases respectively, will not result in any

perceptible impact on water quality in downstream receiving waters in Dublin Bay (and thus in the European sites therein).

- The DNV report also concludes that the cumulative or in-combination effects of effluent arising from the Proposed Development with that of other developments discharging to Ringsend WWTP will not be significant having regard to the size of the calculated discharge from the proposal.
- Habitat loss and fragmentation – construction of the Proposed Development will result in the loss of habitat area; totalling approximately 18.6ha. None of the habitats directly affected by the Proposed Development are considered to be any greater than of local biodiversity importance (higher value). Mitigation measures include – retention of the majority of treeline and hedgerow habitats within the Proposed Development site, measures to protect trees and hedgerows including the implementation of temporary fencing and root protection areas, the translocation of vegetation from the area of marsh habitat and creating a larger area of habitat than what is to be lost.
- Habitat degradation / effects as a result of hydrological impacts – surface water run-off and discharges from the Proposed Development will drain into the existing local surface water network in the absence of mitigation measures, due to the presence of three surface water features within the Proposed Development site (namely the Corbally, Cooldown and Coldwater streams). The associated effects of a reduction of surface water quality could extend downstream for a considerable distance from the discharge point or from the location of a pollution event. However the ZOI of such an event would not extend as far as Dublin Bay and the European sites therein. Mitigation measures to prevent a reduction in surface water quality include but are not limited to - avoidance of works in sensitive areas, restriction of instream works to the period 1st July through 30th September, inclusive to minimise the risks to any salmonids downstream, the implementation of a 10 metre riparian buffer zone, the use of silt fences, exclusion zones (i.e. sediment barriers) between earthworks, stockpiles and temporary surfaces, if pouring of cementitious materials is required for the works adjacent to a surface water feature, or drainage features connected to same, this will be carried out in the dry, discharge water generated during placement of concrete will be removed off site for treatment and disposal, designated refuelling areas for plant, machinery and vehicles and management of construction materials to minimise risk posed to aquatic environment.
- Habitat degradation / effects as a result of air quality impacts – a temporary reduction in air quality in the immediate vicinity may occur due to dust deposition from construction activities. These effects include a reduction in photosynthesis due to dust smothering and chemical changes in plants such as acidity in soils. To control dust emissions during construction works standard mitigation measures shall include: spraying of exposed earthwork activities and site haul roads during dry and/or windy conditions; provision of wheel washes at exit points; control of vehicle speeds and speed restrictions (20 km/h on any un-surfaced site road); covering of haulage vehicles; and, sweeping of hard surface roads.
- Habitat degradation as a result of introducing / spreading non-native invasive species – There is potential for non-native invasive species to be spread or be introduced resulting in the degradation of habitat areas close to the Proposed Development site. Due to the nature of the species present on the site, there is no potential for the spread of these species to European sites or the undermining of conservation objectives associated with

these sites. Mitigation measures to be implemented include a confirmatory pre-construction non-native invasive species survey to confirm presence/absence and extent of all Third Schedule non-native invasive species within the footprint. The invasive species will be removed in advance of construction works by a suitably qualified and licensed invasive species management contractor. All control measures as advised by the invasive species management contractor will be implemented prior to construction of the Proposed Development.

- Mortality/disturbance/displacement – construction related mortality, disturbance and displacement of fauna species could potentially occur within the vicinity of the Proposed Development.
 - Where feasible, vegetation will not be removed during the breeding bird season (i.e. between the 1st March and the 31st August) to avoid direct impacts on nesting birds. Where the construction programme does not allow this seasonal restriction to be observed, these areas will be inspected by a suitably qualified ecologist for the presence of breeding birds prior to clearance.
 - Trees were identified within the Proposed Development site with potential bat roosting features. Prior to felling of trees containing PRFs, a bat ecologist/arborist with training in pre-felling checks for bats will check each feature via MEWP or tree-climbing. Where it is safe and appropriate to do so for both bats and humans, such trees may be felled using soft felling techniques. Where remedial works (e.g. pruning of limbs) is to be undertaken to trees deemed to be suitable for bats, the affected sections of the tree will be checked by a suitably qualified ecologist/arborist for potential roost features before removal. If any bat tree roosts are confirmed, and will be removed by the proposed felling works, then a derogation licence will be required from the NPWS and appropriate alternative roosting sites will be provided in the form of bat boxes.
 - While no badger setts were identified within the Proposed Development site, it does contain suitable habitat for badger. Therefore, a pre-construction confirmatory check will be carried out of suitable badger habitat. Any setts identified will be protected in accordance with the appropriate guidelines.
 - If works to clear any of the habitat features suitable to support amphibian species are to begin during the season where frogspawn or tadpoles may be present (February – mid-summer), or where breeding adult newts, their eggs or larvae may be present (mid-March – September), a pre-construction survey will be undertaken to determine whether breeding amphibians are present. If breeding amphibians are present, they will be translocated to the nearest area of available suitable habitat beyond the Zol of the Proposed Development by a suitably licensed individual.
 - The mitigation measures to protect water quality within the local receiving environment will mitigate for habitat degradation impacts on otter and white-clawed crayfish.

The potential impacts on biodiversity assessed for the operation phase include:

- Habitat loss and fragmentation – The landscaping plan for the Proposed Development site includes for the replacement planting of hedgerows and trees throughout the site of native species to compensate for the loss of hedgerow within the site. While there will be some habitat loss in the short term during the construction phase of the Proposed Development, the planting schedule will result in an overall net gain for hedgerow habitat.

- Habitat degradation – invasive species – Once the Proposed Development is in operation, and in the absence of any required management during the Construction Phase, which might extend into the Operational Phase depending on the method of eradication used, a maintenance and management regime will be implemented, where any introduction and/or spread of non-native invasive plant species are managed. This shall be informed by post-construction monitoring surveys.
- Habitat degradation – surface water – The hydrological connection between the Proposed Development and Dublin Bay via the Corbally stream, River Camac and River Liffey means there is potential for release of contaminated surface water run-off and / or accidental spillage or pollution event into any surface water feature during operational phase. The ZOI of such an event does extend as far as Dublin Bay and therefore does not have the potential to affect water quality in the receiving aquatic environment in the European sites therein. A combination of measures such as the incorporation of SuDS into the design and operational maintenance of the same will ensure no additional risks to any other waterbodies will be encountered.
- Disturbance/displacement – Excess light spill from the Proposed Development may result in avoidance behaviour from bats within the vicinity of the Proposed Development. Where possible operational lighting will be kept to a minimum. No significant potential impacts were identified for disturbance and / or displacement for any other species during operational phase.

Residual Impacts

Following the Full implementation of the mitigation measures outlined in Section 5.6 of the EIAR Biodiversity Chapter, the Proposed Development will not result in any significant residual effects during the construction or operational phase.

6 LAND AND SOILS

An assessment of the potential effect of the Proposed Development on the existing land, soil and geological environment was carried out by DNV.

The assessment was carried out taking cognisance of appropriate national guidelines and standards for Environmental Impact Assessment using data collected from a detailed desk study, the results of site investigations (GII, 2014 and PGL, 2025), a hydrogeological risk assessment undertaken by DNV (DNV, 2025; included in Volume 3 Appendix 6.1) and a review of all relevant drawings and documents pertaining to the site and Proposed Development. A detailed assessment of the potential impacts was undertaken, and appropriate avoidance and mitigation measures were identified to reduce any identified potential impact associated with the Proposed Development.

The Proposed Development will require approximately 18.5ha. of land and will change from undeveloped grasslands to residential use. The proposed change in land use aligns with the zoning objectives set out in the South Dublin County Development Plan (2022–2028).

The soil and geology encountered during the site investigations primarily comprised of clay overlying clayey sandy gravel / sandy gravel or clay / sandy clay. Bedrock was not encountered during site investigations. Based on a review of the results, there is no evidence of anthropogenic contamination in sampled soils.

The construction of the Proposed Development will require the excavation of 184,422m³ of soil and subsoil. It is intended to reuse approximately 80,733m³ of excavated soil and subsoil for landscaping and engineering use. However, it is anticipated that approximately 103,689m³ of surplus and unsuitable material will require removal offsite.

The importation of approximately 164,654m³ of aggregate fill materials will also be required for the construction of the Proposed Development (e.g., granular material beneath road pavement, under floor slabs and for drainage and utility bedding / surrounds etc.). Contract and procurement procedures will ensure that the importation of aggregates to the Proposed Development is sourced from reputable authorised suppliers operating in a sustainable manner and in accordance with the necessary statutory consents.

During the construction phase, all works will be undertaken in accordance with the Construction Environmental Management Plan (CEMP) (DNV, 2025a; submitted with the planning application under separate cover) and the Resource and Waste Management Plan (RWMP) (DNV, 2025b; submitted with the planning application under separate cover). Following appointment, the contractor will be required to further develop the CEMP and RWMP to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground and surface water with regard to the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA-C532', CIRIA, 2001). The CEMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development.

Mitigation measures will be adopted as part of the construction works for the Proposed Development. The measures will address the main activities of potential impact which include:

- Control and Management of Earthworks.
- Control and Management of Soils, Subsoils and Stockpiles.
- Management and Control Procedures for the Exportation of Surplus Soils and Subsoils.

- Management and Control Procedures for the Importation of Aggregates and Materials.
- Control and Handling of Cementitious Materials.
- Control and Handling of Fuel and Hazardous Materials.
- Accidental Release of Contaminants

During the operational phase of the Proposed Development there is a limited potential for any direct adverse effect on the receiving land, soil and geological environment at the site taking account of the design for the Proposed Development.

The design and construction of the Proposed Development will be undertaken in accordance with current Building Regulations which will ensure that the site will be suitable for use for the operational phase as a residential development taking account of the geological site setting.

Overall, considering the avoidance, remedial and mitigation measures, the residual effects regarding the construction phase and operational phase of the Proposed Development are considered 'imperceptible' to the receiving environment (land, soil and geology) and considered non-significant in the context of the EIA Directive.

7 HYDROLOGY AND HYDROGEOLOGY

An assessment of the potential impacts on the existing hydrological and hydrological environmental was carried out by DNV.

The assessment was carried out taking consideration of appropriate national guidelines and standard for the Environmental Impact Assessment using data collected from a detailed desk study, the results of site investigations (GII, 2014 and PGL, 2025), a hydrogeological risk assessment undertaken by DNV (DNV, 2025; included in Volume 3 Appendix 6.1) and a review of all relevant drawings and documents pertaining to the site and Proposed Development. The results of the assessment provided information on the baseline conditions at the site. A detailed assessment of the potential impacts was undertaken, and appropriate avoidance and mitigation measures were identified to reduce any identified potential impact associated with the Proposed Development.

The site of the Proposed Development lies within the Liffey and Dublin Bay Catchment (Hydrometric Area 09) and River Liffey sub-catchment (WFD name: Liffey_SC_090, ID 09_15) (EPA, 2025). The site has been mapped by the EPA (EPA, 2025) to be within the Camac_020 WFD River Sub Basin (IE_EA_09C020250).

The Corbally stream runs along much of the eastern and southern boundary of the site. The Coldwater stream flows along the western boundary, and the Cooldown stream is noted along the central field boundary on the site.

The EPA (EPA, 2025) maps the groundwater body (GWB) beneath majority of the site as the Kilcullen GWB (EU Code: IE_EA_G_003). The bedrock aquifer beneath the most northern area of the site is mapped by the EPA (EPA, 2025) as the Dublin GWB (EU Code: IE_EA_G_008).

Based on groundwater elevation data collected from monitoring wells across the site, shallow groundwater flow is interpreted to occur predominantly toward the northwest and northeast, toward the Corbally Stream (also known as Brownsbarn Stream), which borders the eastern and northern boundaries of the site. The Cooldown Stream, and Coldwater Stream are also considered likely hydraulically connected to the underlying groundwater.

Surface water from the Proposed Development will be managed in accordance with the principles and objectives of Sustainable Drainage Systems (SuDS), the Greater Dublin Strategic Drainage Study (GDSDS), Greater Dublin Regional Code of Practice and South Dublin County Council to treat and attenuate water prior to discharging to the receiving Corbally Stream, Coldwater Stream, and Cooldown Stream.

In addition, land drains will be installed across the site to intercept and convey shallow groundwater towards the receiving Corbally Stream, Coldwater Stream, and Cooldown Stream and the proposed translocated wetland to ensure that the shallow groundwater flow regime is maintained across the site and to support the establishment and long-term viability of the translocated wetland habitat. The proposed drainage system has been designed with sufficient capacity to accommodate the total estimated 26.07m³/day of intercepted shallow groundwater.

Foul water from the Proposed Development will be discharged to into existing Uisce Éireann (UE) infrastructure and will be treated in the Ringsend Wastewater Treatment Plant (WWTP) (Discharge Licence No. D0034-01) before ultimately discharging to the Liffey Estuary Lower transitional waterbody (EU Code: IE_EA_090_0300). The UE Confirmation of Feasibility (CoF) letter dated the 21st of January 2025 (UE COF Reference: CDS24005491) states that the proposed foul water

connection is feasible subject to upgrades which will be funded by the Applicant in agreement and to the satisfaction of UE.

Water supply to the Proposed Development will be from the existing UE mains water supply under agreement from UE and other applicable statutory consents and will be in accordance with the requirements of UE. The UE Confirmation of Feasibility (CoF) letter dated the 21st of January 2025 (UE COF Reference: CDS24005491) states that the proposed water supply connection is feasible without infrastructure upgrade from UE.

During the construction phase, all works will be undertaken in accordance with the Construction Environmental Management Plan (CEMP) (DNV, 2025a; submitted with the planning application under separate cover). The CEMP will address construction environmental management during the construction phase of the Proposed Development. Following appointment, the contractor will be required to further develop the CEMP to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground and surface water with regard to the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA-C532', CIRIA, 2001). The CEMP will be implemented for the duration of the Construction Phase, covering construction management activities that will take place during the Construction Phase of the Proposed Development.

Mitigation measures will be adopted as part of the construction works for the Proposed Development. The measures will address the main activities of potential impact which include:

- Control and management of water and surface runoff.
- Control and management of shallow groundwater during excavation and dewatering
- Management and control of soil and materials.
- Control of management of in-stream or near stream works.
- Control of management of materials from off-site sources.
- Control and management of piling.
- Appropriate fuel and chemical handling, transport and storage.
- Management of accidental release of contaminants at the site.

During the operational phase, ongoing regular operational monitoring and maintenance of drainage and the SuDS measures will be incorporated into the overall management strategy for the Proposed Development. This will ensure that there are no effects on water quality and quantity (flow regime) during the operational phase of the Proposed Development.

Standard design and construction measures will be implemented to mitigate potential impacts associated with shallow groundwater. These include the incorporation of groundwater drainage systems around impermeable subsurface structures, such as building foundations, attenuation tanks, and temporary construction barriers. These measures will minimise the risk of groundwater mounding on the upgradient side of structures and reduce the potential for buoyancy-related issues

Overall, taking into account the avoidance, remedial, and mitigation measures outlined in Chapter 7, the residual effects associated with both the construction and operational phases of the Proposed Development are considered imperceptible in terms of their impact on the receiving environment (hydrogeology). These effects are deemed non-significant within the context of the EIA Directive. Furthermore, no hydrological and hydrogeological-related constraints have been identified that would be expected to hinder or prevent the Proposed Development from proceeding as planned.

There will be no effect to water quality and the existing WFD Status of water bodies associated with the Proposed Development including the Kilcullen GWB, the Dublin GWB, the Camac_020 (i.e., the Corbally Stream, Coldwater Stream, Cooldown Stream) and Camac_030 taking account of embedded design avoidance and mitigation measures where required.

8 AIR QUALITY

Introduction

In terms of potential air quality impacts, the Proposed Development has the potential to give rise to construction dust impact during the construction stage and during the operation of the development, there is the potential for air quality impact due to associated road traffic movements and space heating emissions.

This Air Quality Impact Assessment has been prepared by Olivia Maguire, a senior consultant, and Mervyn Keegan who is a Director of AONA Environmental Consulting Ltd. AONA Environmental Consulting Ltd. specialises in the provision of expertise in noise control and acoustics and air quality and odour consultancy, including impact assessment and mitigation design.

Study Methodology

The assessment has been undertaken with reference to the statutory ambient air quality standards in Ireland as outlined in S.I. No. 739/2022 Ambient Air Quality Standards Regulations 2022, Directive 2024/2881 of the European Parliament and of the Council of 23rd October 2024 on ambient air quality and cleaner air for Europe (recast) and the 2021 update of the WHO air quality guidelines.

The air quality impact assessment has been undertaken with reference to the most relevant and current guidance documents relating to this Chapter of the EIAR.

The background air quality in the area of the development is of good quality and the site is located in 'Zone A' as denoted by the EPA.

Construction Phase

The potential construction phase impact has been assessed in accordance to the Institute of Air Quality Management Guidance on the Assessment of Dust from Demolition and Construction. The type of activities that could cause fugitive dust emissions are earthworks; handling and disposal of spoil; wind-blown particulate material from stockpiles; handling of loose construction materials; and movement of vehicles, both on and off site. The main effect of any dust emissions, if not mitigated, could be annoyance due to soiling of surfaces, particularly windows, cars and laundry.

The potential construction phase impact assessment has assessed the risk of dust impacts, including; the potential dust emission magnitude, the sensitivity of the area, and the risk of impacts. Site-specific construction phase mitigation measures have been outlined and it has been determined that with the implementation of proper control measures dust deposition will not give rise to significant adverse effects.

Operation Phase

The rationale for describing the impact of the Proposed Development is derived from the Environmental Protection UK and Institute of Air Quality Management guidance "Land-Use Planning & Development Control: Planning for Air Quality. This is a two-stage process involving a qualitative and/or quantitative description of the impacts on local air quality arising from the development; and a judgement on the overall significance of the effects of any impacts.

The Operation Phase assessment focused on the change in distribution of road vehicles and the likely effects of these changes on local air quality predicted to occur in the study area due to altered

traffic flows on account of the operation of the Proposed Development. The sensitive residential receptors considered as part of the air quality assessment are the future residents of the Proposed Development and sensitive receptors in close proximity to the site.

The predicted NO₂ and PM₁₀ concentrations have been compared with the relevant Air Quality Standards Regulations limit values. The results of the DMRB Screening Method and subsequent Air Quality Impact Assessment for NO₂ and PM₁₀ indicate that there will not be an exceedance of the relevant Air Quality Limit Values for NO₂ and PM₁₀ at the Proposed Development. The results of the DMRB Screening Method and subsequent Air Quality Impact Assessment indicate that there will be a negligible impact on air quality in the vicinity of the development due to associated traffic flows. Existing residents in the area and future development residents will not experience a significant air quality impact.

In accordance with relevant guidance, consideration of air quality impacts should also be given to ecological habitats with a national or international designation that are located within 200m from the roads assessed within the study area and where a significant change in AADT flows (>5%) will occur. There are six designated sites located within the vicinity of the Proposed Development. The nearest designated site is Glenasmole Valley SAC, located c. 4.17km to the south-east of the Proposed Development site in the Dublin Mountains. The six designated sites are outside the zone of influence of the Proposed Development.

There is no requirement for mitigation measures relating to the operational phase.

Residual Impacts

When the dust minimisation measures detailed in the mitigation section of this Chapter are implemented, residual fugitive emissions of dust from the site will be insignificant and pose no nuisance at nearby receptors. Therefore, the overall impact of the construction phase is considered short-term, negative and not significant.

In relation to air quality during operational phase of the Proposed Development, compliance will be maintained with all relevant ambient air quality standards and guideline values and thus the impact of the development is not significant in the long term.

9 CLIMATE

The climate chapter of the EIAR has been prepared by Milo Reddaway of DNV, Milo holds a Master of Science degree. Milo has worked as a Sustainability Consultant with DNV since April 2025. This Chapter of the EIAR addresses the potential climate impact of the Proposed Development at Boherboy, Saggart, Co. Dublin.

The climate chapter examines the potential for the Proposed Development to impact upon climate (for example greenhouse gas emissions) and its vulnerability to climate change.

The methodology adopted in this chapter covers two separate assessments – a greenhouse gas assessment (GHGA) and a climate change risk assessment (CCRA).

- Greenhouse Gas Emissions Assessment (GHGA) – This evaluation estimates the greenhouse gas emissions generated by the project throughout its entire lifespan (50 years). It then compares these emissions against pertinent Irish carbon budgets, targets, and policies to help gauge their significance.; The Transport Infrastructure Ireland (TII) Carbon assessment tool and the One Click LCA Tool have been used for this assessment. This assessment has been undertaken in line with the Institute of Environmental Management and Assessment (IEMA) guide 'Assessing Greenhouse Gas Emissions and Evaluating their Significance', 2nd Edition, 2022 and
- Climate Change Risk Assessment (CCRA) – This analysis examines how a changing climate could affect a project and its surrounding environment. The assessment considers a projects vulnerability to climate change and identifies adaptation measures to increase project resilience. It has been conducted in accordance with Transport Infrastructure Ireland (TII) (2022a) PE-ENV-01104: Climate Guidance for National Roads, Light Rail and Rural Cycleways (Offline & Greenways) – Overarching Technical Document

Existing Environment

In 2023, Ireland's GHG emissions are estimated to be 58.82 million tonnes carbon dioxide equivalent (Mt CO₂eq), which is 6.1% lower (or 3.79 Mt CO₂eq) than emissions in 2022 (62.26 Mt CO₂eq) and follows a 3.0% decrease in emissions reported for 2022. Emissions are 3.3% below the historical 1990 baseline for the first time in 33 years.

Impacts to the proposed Project as a result of climate change involve increases in temperatures and increases in the number of rainfall days per year. Ireland has observed increases in the annual rainfall in the north and west of the country, with small increases or decreases in the south and east including in the region where the Proposed Development will be located.

Impact Assessment: Construction Phase

Construction CCRA

A detailed CCRA of the construction phase has been scoped out, as discussed in Section 9.10.4.2, which state that there are no residual medium or high-risk vulnerabilities to climate change hazards and therefore a detailed CCRA is not required. However, consideration has been given to the Proposed Development's vulnerability to the following climate change hazards with best practice mitigation measures proposed.

Construction GHG Emissions

The total embodied carbon for the construction phase, including the maintenance and replacement of materials throughout the development's lifetime, has been calculated at 38,870 tonnes CO₂e (see Figure 9-1 below). Since the overall GHG emissions from the development cannot be directly compared to a single sector's 2030 carbon budget, the emissions are categorised into different assessment areas.

When annualised over the Proposed Development's 50-year lifespan, the estimated total GHG emissions amount to 0.0013% of Ireland's total GHG emissions in 2023 and 0.0023% of Ireland's non-ETS 2030 emissions target. Specifically, emissions from transport-related activities account for 0.0129% of the 2030 Transport budget, construction waste emissions represent 0.0778% of the Waste budget, and industry-related emissions comprise 0.0194% of the 2030 Industry budget.

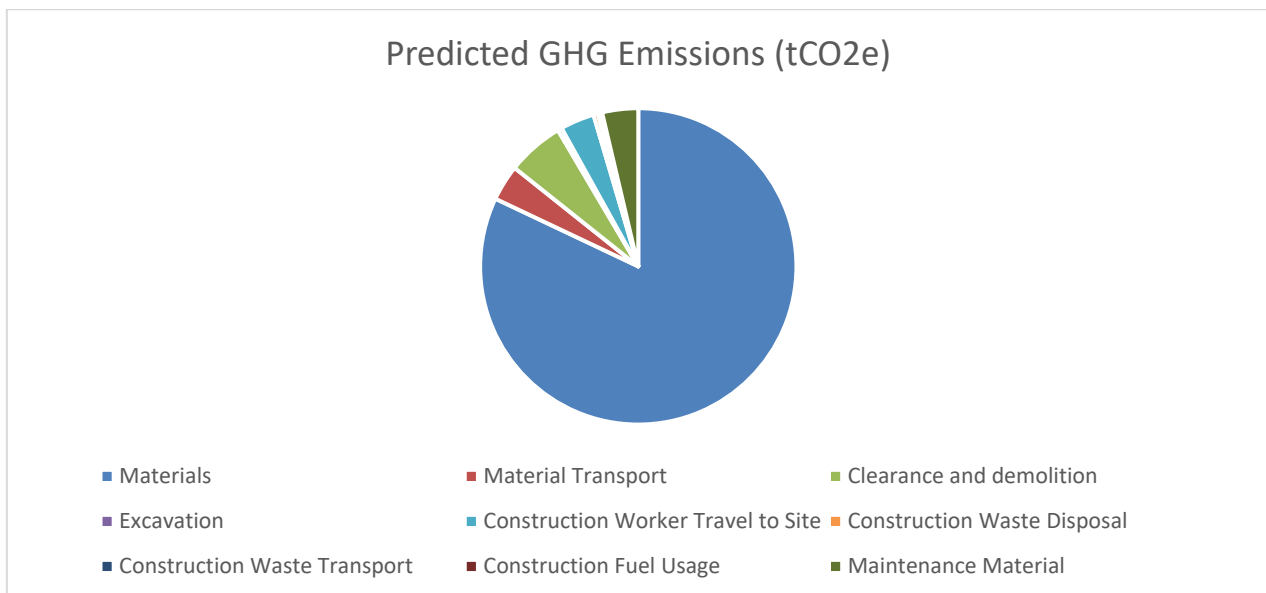


Figure 3 - Construction Categories Greenhouse Gas Emissions tCO₂e

Operational Phase CCRA

A screening CCRA i.e. vulnerability assessment, did not identify any residual medium or high risks to the Proposed Development as a result of climate change (See table 9-1 below). Therefore, a detailed CCRA for the construction and operational phase were scoped out. While a CCRA for the construction phase was not required, best practice mitigation against climate hazards is still recommended within the climate chapter.

Table 2 - Climate Change Vulnerability Assessment/Climate Screening

| Climate Hazard | Sensitivity | Exposure | Vulnerability |
|--------------------------------------|-------------|------------|---------------|
| Flooding (Coastal, Pluvial, Fluvial) | 2 (Medium) | 2 (Medium) | 1 (Low) |
| Extreme Heat | 1 (Low) | 1 (Low) | 1 (Low) |
| Extreme Cold | 1 (Low) | 1 (Low) | 1 (Low) |

| | | | |
|------------------|---------|---------|---------|
| Wildfire | 1 (Low) | 1 (Low) | 1 (Low) |
| Drought | 1 (Low) | 1 (Low) | 1 (Low) |
| Extreme Wind | 1 (Low) | 1 (Low) | 1 (Low) |
| Lightning & Hail | 1 (Low) | 1 (Low) | 1 (Low) |
| Landslides | 1 (Low) | 1 (Low) | 1 (Low) |
| Fog | 1 (Low) | 1 (Low) | 1 (Low) |

Operational Phase GHG Assessment

There is the potential for a number of greenhouse gas emissions to the atmosphere during the operational phase of the development. The main sources of GHG emissions from the operational stage of the development arise from heating, domestic hot water, and lighting.

The estimated total GHG emissions, when annualised over the 50-year Proposed Development lifespan, are equivalent to 0.0008% of Ireland’s total GHG emissions in 2023 and 0.0014% of Ireland’s non-ETS 2030 emissions target. The total GHG emissions associated with residential-related activities are 0.0081% of the 2030 residential budget.

Cumulative Impact

The TII PE-ENV-01104 (2022) states that a typical cumulative assessment in Environmental Impact Assessment (EIA) is not applicable for GHG assessments because the impacts on global climate are not geographically constrained. However, by evaluating a project's GHG impact in relation to Ireland's net zero goals and sectoral carbon budgets, the assessment inherently becomes cumulative. This approach helps demonstrate the project's potential influence on Ireland's ability to meet its national carbon reduction targets.

Cumulative effects, which result from the combined effects of the Proposed Development and other existing or planned developments, can intensify climate-related risks and environmental pressures. Understanding these interactions is crucial for developing effective mitigation and adaptation strategies that align with broader sustainability objectives. It is considered that there are no other potential significant cumulative impacts associated with the Proposed Development and considered **offsite permitted developments.**

Mitigation

Construction Phase Climate Change

Regarding the development’s resilience to climate change, the Contractor will be required to mitigate the effects of extreme weather, such as heavy rainfall, flooding, windstorms, and temperature fluctuations, through site risk assessments and method statements. The Contractor will also address risks associated with fog, lightning, and hail through appropriate risk assessments and mitigation plans.

Pre/Construction Phase GHG Mitigation

Embodied carbon from materials and construction activities is the primary climate impact during the construction phase, so pre-construction strategies should focus on carbon avoidance and circularity. Key measures include adopting a Design for Performance approach with whole-life carbon targets, integrating circular design principles for adaptability and reuse, and regularly updating building lifecycle reports. Additional actions involve carbon literacy training, Building Renovation Passports, cement reduction, and sustainable procurement practices that prioritize Environmental Product Declarations (EPDs) and local sourcing. Compliance with EU taxonomy and Level(s) indicators, energy and carbon performance disclosure, and post-occupancy evaluations further strengthen sustainability outcomes. Waste management plans should allow time for reuse and recycling, supported by pre-demolition audits and on-site material recovery, while aiming for certifications such as LEED or HPI ensures alignment with best practices.

During construction, best practice measures should minimize greenhouse gas emissions and climate impacts. These include deploying energy-efficient or electric machinery, using renewable energy sources for site operations, and enforcing no-idling policies. Sustainability awareness should be embedded through site inductions, toolbox talks, and appointing sustainability champions. Transportation initiatives such as carpooling and EV use, combined with rigorous monitoring of fuel and energy consumption, support emissions reduction. Regular maintenance of equipment, application of the waste hierarchy, and sourcing low-carbon, locally available materials with environmental certifications further reduce embodied emissions and operational impacts.

Operational Phase Climate Change Mitigation

A number of measures have been incorporated into the design of the development in order to mitigate against the impacts of future climate change. For example, adequate attenuation and drainage have been incorporated into the design of the development to avoid potential flooding impacts as a result of increased rainfall events in future years. These measures have been considered when assessing the vulnerability of the Proposed Development to climate change.

Operational Phase GHG Mitigation

The Proposed Development has been designed to reduce the impact on climate as a result of energy usage during operation. The Energy Report prepared by BBSC and building lifecycle report prepared by MCORM Architecture and Urban Design and submitted under separate cover with this planning application details a number of incorporated design mitigation measures that have been incorporated into the design of the development to reduce the impact on climate wherever possible.

Such measures included in the Proposed Development to reduce the impact to climate from energy usage are:

The development is designed to comply with the Near Zero Energy Building (NZEB) standards, in accordance with Part L (2021) of the Building Regulations.

A Building Energy Rating (BER) of A2/A3 is targeted for all dwellings, with energy performance assessed using the SEAI DEAP methodology.

The development incorporates high-performance building fabric, including low U-values, improved air permeability, and minimized thermal bridging, to reduce heat loss and improve energy efficiency.

Renewable energy technologies, including photovoltaic (PV) solar panels and air source heat pumps, are planned to meet the renewable energy contribution required under Part L.

All internal and external lighting will utilize energy-efficient LED luminaires, with automatic controls such as motion sensors in common areas to enhance efficiency.

Mechanical ventilation systems, including heat recovery ventilation (MVHR), are considered to improve indoor air quality while minimizing energy use.

No fossil fuel-based heating systems will be used; instead, electric air source heat pumps will provide space and water heating.

Occupants will receive a comprehensive Home User Guide with information on building systems, appliances, and energy-saving features to support informed and efficient operation of their homes.

In addition, electric vehicle and bicycle parking will be provided within the development which will promote the use of more sustainable modes of transport and reduce potential transport emissions. Full descriptions of the measures proposed, and their benefits are outlined within the Building Lifecycle Report submitted with this application.

Residual Impact

The Proposed Development will result in some impacts to climate through the release of GHGs. IEMA (2022) state that the crux of assessing significance is “not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050”. The Proposed Development has proposed some best practice mitigation measures and is committing to reducing climate impacts where feasible, the development will comply with the minimum standards set through regulation (NZEB and Part L 2021). As per the assessment criteria the impact of the Proposed Development in relation to GHG emissions is considered long-term, minor adverse and not significant.

In relation to climate change vulnerability, it has been assessed that there are no significant risks to the Proposed Development as a result of climate change.

Monitoring

During the construction phase, monitoring should focus on optimizing material reuse and recycling through a digital tracking system, supported by weekly progress reports and on-site inspections. Compliance with EU taxonomy requires thorough documentation and independent audits, while greenhouse gas (GHG) reduction measures include appointing sustainability champions, tracking idle times, and maintaining digital logs for equipment and waste. Waste segregation audits, monthly waste reports, and transport-related carbon footprint analysis further ensure environmental performance. An Environmental Management Plan (EMP) with adaptive management principles is recommended, incorporating climate resilience strategies, energy efficiency monitoring, and renewable energy system checks. Key actions include regular inspections of drainage systems, energy audits to meet Near Zero Energy Building (NZEB) standards, and monitoring sustainable transport facilities such as EV charging stations and bicycle parking.

For the operational phase, ongoing monitoring ensures that climate mitigation, energy efficiency, and sustainable transport measures remain effective throughout the building's lifecycle. Regular inspections, energy performance assessments, and occupant engagement will help maintain compliance with regulatory requirements and support broader sustainability goals. These strategies

collectively aim to reduce environmental impacts, enhance resilience, and promote long-term sustainability in alignment with best practices and legal standards.

10 NOISE AND VIBRATION

The noise and vibration chapter of the EIAR has been prepared by Wave Dynamics Limited, an Acoustic Consultancy specialising in noise and vibration. Chapter 10 of the EIAR addresses the potential noise and vibration impact of the Proposed Development located north of the Boherboy Road, approximately 2km south-west of Tallaght Town Centre, 1.1Km east of Saggart, 700m south-west of Citywest Shopping Centre and 1.6Km south of the N7.

The assessment considers the noise and vibration impact of the short-term construction phase and the long-term operational phase on the surrounding environment.

Existing Environment

The site is located to the north of Boherboy Road, approximately 2Km south-west of Tallaght Town Centre, 1.km east of Saggart, 700m south-west of Citywest Shopping Centre and 1.6km south of the N7. The site is bounded by residential dwellings to the north and east. The areas to the west and south are predominantly undeveloped, agricultural lands. Three streams cross the site. These include the Corbally Stream, the Cooldown Stream and the Coldwater Stream. There are also a number of hedgerows running both around the edges of the site as well as through the site itself. Figure 10-1 outlines the site location, measurement location and noise sensitive locations in the surrounding area.

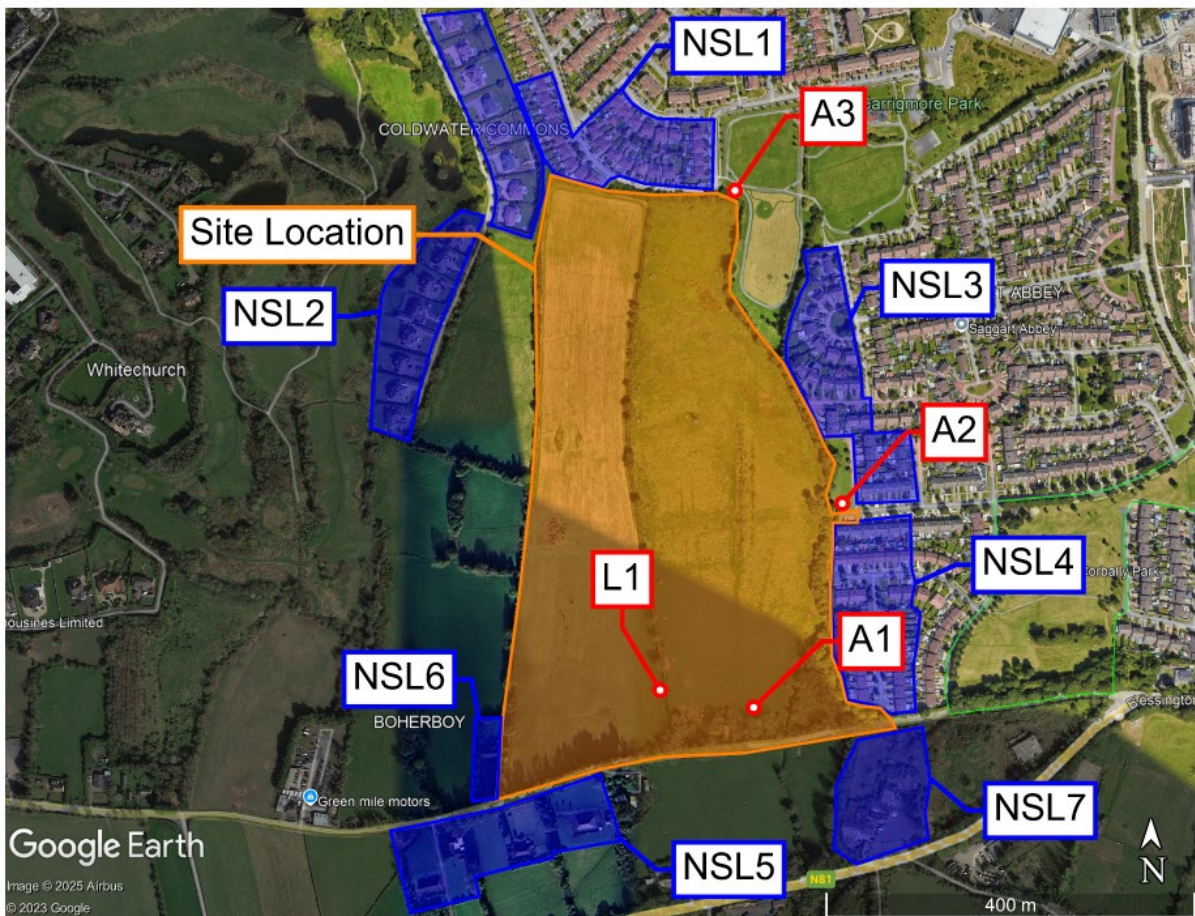


Figure 4 - Site Location, Measurement Locations L1, A1-A3, and Noise Sensitive Locations (NSLs) 1-7

Table 3 - Noise Sensitive Locations

| Noise Sensitive Location | Distance to the Centre of the Site (m) ² |
|--------------------------|---|
| NSL1 | 300 |
| NSL2 | 300 |
| NSL3 | 160 |
| NSL4 | 190 |
| NSL5 | 340 |
| NSL6 | 370 |
| NSL7 | 415 |

Impact Assessment

Construction Phase Noise

For the construction phase the cumulative noise effect from construction was assessed based on a worst-case scenario i.e. all sites in construction at the same time with each phase considered as a new sensitive location after the completion of construction. The noise sensitive locations were considered in each direction from the site and their proximity to the construction works. The cumulative noise effect from construction noise was predicted at each noise sensitive location outlined in Figure 10-1. The majority of noise sensitive locations were predicted to comply with the construction noise criteria however some noise sensitive locations were predicted to exceed the project criteria. Mitigation measures have been specified to control the noise and vibration impact from construction activities. This includes the use of screening via hording, low noise plant and construction noise and vibration monitoring.

Construction Phase Vibration

Vibration from construction activities was assessed. The main source of vibration during the construction phase will be the substructure stages where piling and other earthworks are a potential part of the construction methodology. It is not anticipated that the vibration will have a negative impact on the sensitive receptors however precautionary vibration monitoring has been recommended during the construction period to ensure any potential vibration impact is controlled. Vibration limits from the construction phase have been set for the development for the purposes of monitoring the vibration impact.

Operational Phase Noise

For the operational phase the main sources of noise are traffic movements, car parking, creche outdoor play area and public and communal open spaces. Traffic levels increasing less than 25% will likely equate to an increase of noise levels in the range of 1dB(A). The additional traffic generated by the Proposed Development will not lead to a significant increase in noise or contribute to adverse noise impact on surrounding sensitive receptors.

Operational Phase Vibration

There are no predicted vibration sources during the operational phase, therefore, mitigation measures are not required to control operational phase vibrations.

Cumulative Effects

The assessment indicates that the Proposed Development, when considered alongside other major projects in the Boherboy area, is unlikely to cause significant adverse noise or vibration effects on the surrounding environment. The large residential and smaller residential developments are located between 240 meters and 4.9 kilometres away from the Proposed Development and are not expected to cause cumulative noise or vibration effects, even if construction overlaps, due to the significant distance and existing sound screening.

The BusConnects Tallaght/Clondalkin Core Bus Corridor scheme construction may have temporary moderate to significant noise effects for properties within 15 meters of specific roadworks, but these are expected to be short-lived. Once operational, the BusConnects project is not predicted to cause negative noise effects. Therefore, the combined effect of these developments on noise and vibration in the area is anticipated to be minimal or manageable, with no lasting negative effect.

Construction Phase Noise Mitigation

Mitigation measures for construction noise include, using low noise equipment, controlling noise at the source with temporary screens, erecting site hoarding, temporary noise barriers, public engagement and noise monitoring at the closest sensitive receptors.

Construction Phase Vibration Mitigation

Mitigation measures include vibration monitoring at the closest sensitive receptors during the substructure stages of construction when piling operations are likely to occur.

Table 4 - Summary of Construction Phase Effects Post Mitigation

| Quality | Significance | Duration | Type |
|---------|---------------|------------|-----------|
| Neutral | Slight | Short-Term | Noise |
| Neutral | Imperceptible | Short-Term | Vibration |

Operational Phase Noise Mitigation

Based on the worst-case assessment outlined in Chapter 10 of the main EIAR body, the development is compliant with the project criteria. Therefore, no mitigation for operational noise is required to control operational noise levels at the surrounding sensitive locations.

Operational Phase Vibration Mitigation

There are no predicted vibration sources during the operational phase, therefore, mitigation measures are not required to control operational phase vibrations.

Table 5 - Summary of Operational Phase Effects Post Mitigation

| Quality | Significance | Duration | Type |
|---------|---------------|-----------|-----------|
| Neutral | Slight | Long-Term | Noise |
| Neutral | Imperceptible | Long-Term | Vibration |

Operational Phase Inward Impact Mitigation

Mitigation measures have been outlined including façade specification to ensure the dwellings in the Proposed Development will achieve suitable internal noise levels.

Construction Phase Residual Effects

As the construction phase is temporary, there will be no long-term/permanent noise effects on the surrounding area from construction noise or vibration.

Table 6 - Summary of Construction Phase Effects Post Mitigation

| Quality | Significance | Duration | Type |
|---------|---------------|------------|-----------|
| Neutral | Slight | Short-Term | Noise |
| Neutral | Imperceptible | Short-Term | Vibration |

Operational Phase Residual Effects

Operational noise sources include additional traffic on the roads surrounding the development, traffic movements, car parking, creche outdoor play area and public and communal open spaces. Based on the noise impact assessment it is not likely that there will be any negative noise effect on the surrounding area.

Table 7 - Summary of Operational Phase Effects Post Mitigation

| Quality | Significance | Duration | Type |
|---------|---------------|-----------|-----------|
| Neutral | Imperceptible | Long-Term | Noise |
| Neutral | Imperceptible | Long-Term | Vibration |

Construction Phase Monitoring

Based on the predicted noise and vibration levels during the construction stage, noise and vibration monitoring have been recommended to control the noise and vibration emissions of the construction phase and to protect the surrounding sensitive receptors.

Operational Phase Monitoring

Based on the predicted noise levels of the development in operation there is no noise or vibration monitoring required during the operational phase of the development.

11 LANDSCAPE AND VISUAL

This chapter and the associated figures/ photo plates identify significant landscape and visual effects, if any, which may occur, or which can reasonably be expected to occur because of the Proposed Development and the proposed landscape mitigation measures.

A desk-based study was carried out of current planning policy related to the site and a landscape and visual study of the wider area beyond the site was carried out. A computer software programme was used to identify possible areas where the Proposed Development may be expected to theoretically be seen from beyond the site boundaries. A number of different locations for the production of verified photomontages were chosen depending on a number of factors, expected level of sensitivity of viewer, the distance from site, expected potential impact and a representative mix of receptors. The methodology used to produce these verified photomontages give an accurate representation to assess the potential landscape and visual impacts. Over 15 years' experience in the production of landscape and visual impact assessments was also used to assess the potential landscape and visual impacts.

The potential for landscape and visual impacts is reduced through the design and layout of the buildings, the retention of most hedgerows, the reinforcement of external and internal hedgerows with additional planting, wetland creation and a comprehensive planting programme and monitoring.

During the construction phase the site landscape will undergo a change from agricultural land to residential units and a creche building with extensive landscaping. Relying on experience and on the list of references stated in Chapter 11, and in light of the current landscape character and the current land use zoning it is concluded that the Proposed Development will, therefore, have a moderate, neutral to negative and short-term impact on the visual and landscape character of the Site during the Construction Phase. Similar type of impacts occurs in this landscape during the building of any medium to large development.

As the main tree, hedge and shrub elements of the Proposed Development establish and grow the mass of the Proposed Development, the view will become increasingly fragmented and less visible. The operational stage landscape and visual impacts can be considered to reduce to, negative to neutral in quality, very low to medium in magnitude and negligible to moderate in significance and long-term impacts.

Cumulative impacts can be described as impacts that result from changes caused by a development in conjunction with other past, present or reasonably foreseeable actions. Given the close proximity of the lands to other established developments, it is reasonable to expect development of the proposed site. With the implementation of the current and future Development Plan Standards it is reasonable to expect the orderly and legible development of the area which mitigates any landscape and visual impacts to a minor or below impact.

The do-nothing impact refers to the non-implementation of the Proposed Development. The primary effect of this would be that the impacts and effects identified would not directly occur. In the event that the development does not proceed it is very likely that the subject site would be developed in the future in some shape or form, in line with planning. If the site is left in its current state, it will be likely continued to be maintained in its current manner and hence a neutral impact will persist on the existing landscape.

There is an impact on landscape but it is consistent with the prevailing planning policy context and sustainable development objectives enunciated in international, national, regional and local policy and the impact can be considered neutral in quality, medium in magnitude, moderate in significance, and long-term impacts

It is concluded that the Proposed Development will not result in and significant landscape or visual impacts.

12 ARCHAEOLOGY AND CULTURAL HERITAGE

The chapter has been informed by a desktop baseline review and field inspection, in order to determine the nature of the archaeological and cultural heritage resources contained within the Proposed Development area and wider study area. The results of previous test trenching undertaken in 2018 informed the conclusions of this assessment.

While no archaeological remains have been identified within the Proposed Development area, it is possible that previously unrecorded small-scale remains survive beneath the current ground surface, outside the footprint of the excavated test trenches. If present, ground works associated with the Proposed Development may have a significant direct negative impact on any such remains.

It is recommended that all topsoil stripping be subject to archaeological monitoring by a qualified archaeologist under licence from National Monuments Service. Where possible topsoil should be stripped using a flat-edged bucket to facilitate the identification of any potential archaeological remains. Should any features of archaeological potential be identified, further mitigation may be required in consultation with the National Monuments Service of the Department of Housing, Local Government and Heritage. This may include preservation *in situ* or by record (excavation).

The eastern perimeter of the Proposed Development area is formed by a townland, parish and barony boundary which has considerable antiquity. This boundary line is afforded protections under Objective 4 NCBH11 of the South County Dublin Development Plan (2022-2028). Limited interventions through these boundaries are proposed to provide access to the Proposed Development area. Proposed intervention points along the townland/ parish/ barony boundary forming the eastern perimeter of the site will be fully recorded by photographic and written record, including measured survey of indicative sections, prior to removal at construction phase. Any subsurface remains of the boundaries exposed during topsoil stripping/excavation will be recorded during the programme of archaeological monitoring. In addition, the proposed landscaping scheme will indicate the former alignment of the townland boundaries, where partial removal is required. Furthermore, the retained townland boundaries will be bolstered by additional planting.

13 MATERIAL ASSETS: WASTE AND UTILITIES

This chapter of the EIAR provides an assessment of the potential effects of the Proposed Development on material assets including built services and waste.

Surface Water Drainage

Construction activities have the potential to cause contamination of surface water runoff with sediment or other contaminants from groundworks areas and stockpiled soils. Surface runoff will be managed during construction and there will be no unauthorised discharges of water from the site. However, in the event of a rainfall event, surface runoff entering the open excavations could result in mobilisation of identified hydrocarbon contamination in soil and leaching and migration to groundwater beneath the site. The potential effects will be negative, slight and short-term.

During operation, the site will have increased impermeable surfaces due to the access roads and houses. Surface water runoff from roads and the impermeable areas of the Proposed Development may contain potentially contaminating compounds (petroleum hydrocarbons, metals, and suspended sediments). Surface water from the Proposed Development will be managed in accordance with the principles and objectives of Sustainable Drainage Systems (SuDS). Overall, the likely effect of the surface water drainage strategy for the Proposed Development will be negative, slight and long-term and is considered non-significant in the context of the EIA Directive. Chapter 7 Hydrology and Hydrogeology of this EIAR, has assessed the potential effects on surface water in further detail.

Wastewater Drainage

The commencement of construction will increase foul water/wastewater production at the site. Uisce Éireann confirmed feasibility. There is no foul water sewer located on the subject lands. Therefore, it is proposed to service the subject lands by providing a new gravity foul sewer across the SDCC park to the northeast of the site connecting into the existing Uisce Éireann (UÉ) foul infrastructure. Further details are provided in Chapter 7: Hydrology and Hydrogeology.

Due to the sloping topography of the subject lands, it is not feasible to drain the apartments on the northern c.20% of the site or potential future school site by gravity. Therefore, a foul water pumping station is proposed as part of this application to drain the above blocks from lower NE corner of the site into the gravity sewer to be constructed connecting into Verschoyle Green. The foul pumping station is to be in accordance with the Uisce Éireann Code of Practice for Wastewater Infrastructure 2025

The effect on water quality from wastewater is expected to be negative, imperceptible, and long-term, but non-significant according to the EIA Directive.

Water Supply

There is no water supply or demand at present on site. This application proposes to make a new water connection to the Boherboy watermain in the Boherboy Road.

Site offices and construction activities will create a demand for water supply to the site. A temporary connection is required to facilitate on-site works for all housing developments. Commencement of construction will therefore result in a net increase in the water demand for the site

New connection works may cause water supply disruptions during the construction phase. These disruptions will be controlled by UÉ and South Dublin County Council in accordance with standard protocols. Due to the nature of the works during the construction phase, the likely effect will be negative, imperceptible and short-term and is considered non-significant in the context of the EIA Directive.

The average daily domestic water demand requirement for the Proposed Development is estimated at 247,500 l/day. Water supply will be provided by the existing Uisce Éireann infrastructure, subject to upgrades. The increased demand during the operational phase will have a neutral, imperceptible, and long-term effect, considered non-significant according to the EIA Directive.

Electricity Supply

Construction related activities will require temporary connection to the local electrical supply network. The Main Contractor will apply for a power supply from ESB Networks to power both the compound and the construction site. The size of supply will be calculated to ensure it is sufficient to power both the site compounds and construction site activities. A temporary suspension of the network locally to facilitate the connection works may be required during the construction phase, and an additional temporary suspension will also occur when power is provided to the site of the Proposed Development. These temporary suspensions will be controlled by ESB Networks as the statutory undertaker and in accordance with standard protocols. The potential effect from the construction phase of the Proposed Development on the local electrical supply network is likely to be negative to neutral, slight and temporary, depending on the length of temporary network suspensions, and is considered non-significant in the context of the EIA Directive.

Electricity will be required to provide public lighting, domestic lighting, power supply and heating for each individual unit for the Proposed Development along with electric vehicle parking. The Proposed Development is likely to increase demand on the existing electricity supply network. The potential effect from the operational phase on the electricity supply network is likely to be neutral, imperceptible, and long-term and is considered non-significant in the context of the EIA Directive.

Gas Supply

There is no gas supply at present on site, and none is proposed in the context of the Proposed Development.

Telecommunications

The operational phase will have a marginal increase in demand on the local telecommunications network. The site is located within an area where high speed broadband is available and there are three mobile mast clusters adjacent to the site. The likely effect of the operational phase on the local telecommunications network will be neutral, and imperceptible in the long-term and is considered non-significant in the context of the EIA Directive.

Waste

A Resource Waste Management Plan (RWMP) has been prepared for the Proposed Development. The construction phase will give rise to the requirement to remove and bring quantities of various materials to and from the site. Construction and excavation related wastes will be created during the construction phase. This has the potential to effect on the local waste management network. Waste will also be generated from construction workers e.g., organic/food waste, dry mixed

recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminium cans, tins and cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite during the construction phase. Waste printer/toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices. Office and canteen waste, including food waste, will be stored in wheelie bins on site and it will be collected by an appropriately authorised waste collector. All wastes generated on site will be sent for recycling, recovery, or disposal to a suitably licensed or permitted waste facility.

The potential effect from the construction phase on waste recovery and disposal will be negative, slight and short-term and is considered non-significant in the context of the EIA Directive.

An Operational Waste Management Plan (OWMP) has been prepared for the Proposed Development. The operational phase of the Proposed Development will result in an increase in the production of municipal waste in the region and will increase demand on waste collectors and treatment facilities, however, as the surrounding area is urban in nature, waste collection is commonplace.

14 MATERIAL ASSETS: TRAFFIC AND TRANSPORTATION

This chapter of the EIAR assesses the likely effects of the Proposed Boherboy LRD on the surrounding transport network during both the construction and operational phases.

The assessment was prepared in accordance with the IEMA Environmental Assessment for Road Traffic (2023) and the EPA Guidelines on the Information to be Contained in EIARs (2022). The study examined traffic volumes, accessibility by sustainable transport modes, and potential impacts on pedestrians, cyclists, and road users.

Construction Phase

Construction of the Proposed Development will occur over multiple phases between 2025 and 2032. The works will generate temporary traffic associated with workforce travel, material deliveries, and waste removal.

Peak construction activity is expected to result in an uplift in daily traffic of less than 20%, with all increases remaining below the 30% threshold at which perceptible environmental effects might occur, as defined by IEMA (2023).

Construction-related effects such as pedestrian severance, delay, amenity, fear and intimidation, and driver delay are assessed as temporary, slight, adverse, and not significant in EIA terms.

A Construction Traffic Management Plan (CTMP) will be implemented to control access, schedule deliveries outside commuter peak hours, and monitor the condition of local haul routes. With these embedded measures, the construction phase impacts will remain temporary and not significant.

Operational Phase

Once completed and occupied, the Proposed Development will generate modest increases in local traffic volumes. The assessment indicates that no link or junction within the study area will experience a traffic uplift exceeding 10%, meaning the projected changes are not discernible in accordance with IEMA (2023).

The surrounding network, including Boherboy Road, Carrigmore, and Corbally, will continue to operate effectively, and no material change to road safety is anticipated.

Operational-phase impacts on pedestrian severance, delay, amenity, and driver delay are assessed as slight, adverse, long-term, and not significant in EIA terms.

The scheme's design, which incorporates strong pedestrian and cycle connections and access to public transport services, will help reduce car dependency and support sustainable travel behaviour consistent with the National Sustainable Mobility Policy (2022) and DMURS.

Cumulative Assessment

Cumulative effects have been considered in combination with nearby permitted and Proposed Developments within the Saggart, Citywest, and Fortunestown area, including Planning Ref. SD20A/0232 (Hotel and Aparthotel development at Boherboy/Saggart Road).

The cumulative uplift in traffic remains below 10% across all assessed nodes. Therefore, no significant cumulative traffic or transport impacts are predicted during either the construction or operational phases.

Residual Effects

No significant residual or long-term adverse effects are predicted. All construction impacts will be temporary and reversible, and operational impacts will be imperceptible to slight and not significant.

The Proposed Development will integrate effectively with the surrounding road network and promote safe, sustainable access for all users.

15 RISK MANAGEMENT

It is critical that any Proposed Development is screened against potential risks which it might encounter and/or impose on the nearby environment during its construction and operational phase. This chapter sets out the assessment of the vulnerability of the Proposed Development to risks of major accidents and/or disasters. It assesses the expected effects of the Proposed Development to the risk of major accidents and disasters.

To understand the potential consequences and predicted effects of any major accident or disaster due to the Proposed Development and the vulnerability of the Proposed Development, a desk study was undertaken. The assessment reviewed:

- The vulnerability of the Proposed Development to major accidents or disasters.
- The potential for the Proposed Development to cause risks to human health, cultural heritage and the environment, because of that identified vulnerability.

A methodology has been used including the following assessment:

- Identifying and screening the hazards;
- Screening the hazards;
- Identifying the effect;
- Assessing the likelihood of the major accident or disaster occurring, and
- Assessing any risks that remain.

The design has considered the potential for flooding, road accidents, invasive species or fire within the design methodology.

The assessment considered a range of potential risks relevant to the site and its surroundings, including:

- Flooding, due to the site's location within Flood Zones A & B at its northern boundary, with mitigation through compensatory storage and a site-specific flood risk assessment;
- Fire, with prevention and emergency response measures outlined in the Fire Safety and Emergency Response Plan for construction and operational phases;
- Industrial accidents, including proximity to Seveso sites such as Dachser Ireland Ltd and Brenntag Chemicals Distribution, which were assessed and found not to pose a significant risk due to distance and containment protocols;
- Air quality impacts, with dust suppression and emissions control measures during construction to protect ambient air quality;
- Invasive species, addressed through biodiversity protection measures to prevent the spread of non-native plants recorded on-site;
- Infrastructure risks, including water supply, wastewater treatment, telecommunications, and solid waste management, all supported by existing services and coordinated planning to ensure resilience.

Having conducted all of the requisite identification, screening and assessments, it has been concluded that the vulnerability of the Proposed Development to major accidents and/or disasters is not significant.

16 INTERACTIONS

Interrelationships between various environmental aspects must be considered when assessing the impact of the Proposed Development, as well as individual significant effects.

The significant effects of the Proposed Development and the proposed mitigation measures have been detailed in the relevant chapters of this EIAR. However, as with all developments that pose potential environmental effects, there also exists potential for interactions/interrelationships between the effects of different environmental aspects. The results of such interaction may exacerbate or ameliorate the magnitude of effects.

The preceding Chapters 4-14 of this EIAR identify any potential environmental effects that may occur as a result of the Proposed Development in terms of Population and Human Health, Biodiversity, Land and Soil, Hydrology and Hydrogeology, Air Quality, Climate, Noise and Vibration, Landscape and Visual Assessment, Archaeology and Cultural Heritage, Material Assets: Traffic and Transport and Material Assets: Waste and Utilities.

When considering interactions, each specialist assessor has carefully examined both direct and indirect pathways through which environmental effects could interact with one another. For any development with the potential for significant environmental effects, there is also the potential for those effects to interact either amplifying, reducing, or neutralising one another. In practice, for the Proposed Development, many of these interactions are slight or subtle, occurring across different environmental disciplines; however, all such pathways have been vigilantly assessed to ensure that any cumulative or interactive effects are fully understood and appropriately addressed.

Chapter 16 of this EIAR summarises the interactions identified between the various environmental disciplines covered in Chapters 4 through to 14.

The EIAR concludes that interrelationships between environmental aspects are negligible, with no additional significant effects identified as a result of effect interactions. Overall, the Proposed Development is not expected to give rise to any significant adverse effects, either individually or through potential interactions.

17 MITIGATION AND MONITORING

The Proposed Development will be carried out in a way that avoids potential environmental effects where possible. Where such effects have been identified, specific mitigation and monitoring measures have been proposed for both the construction and operational phases of the Proposed Development.

These measures are described in detail within each of the topic-specific chapters of the EIAR (Chapters 4 to 14), which address the following environmental aspects: Population and Human Health, Biodiversity, Land and Soil, Hydrology and Hydrogeology, Air Quality, Climate, Noise and Vibration, Landscape and Visual Assessment, Archaeology and Cultural Heritage, Material Assets: Traffic and Transport and Material Assets: Waste and Utilities.

In each case, mitigation has been designed to reduce the significance of any potential effects on the receiving environment. Chapter 17 of the EIAR collates and summarises all of the mitigation and monitoring measures made throughout the EIAR, providing a clear overview of the actions to be implemented and how they will be monitored to ensure environmental protection throughout the lifecycle of the Proposed Development.



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