



# Environmental Impact Assessment Report

**Application to An Bord Pleanála for permission  
for a strategic housing development at Growth  
Area 2, located in the townland of Stapolin,  
Baldoyle, Dublin 13**

## **Volume 1 – Non-Technical Summary**

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**Prepared for: Lismore Homes Limited**

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## NON-TECHNICAL SUMMARY

### 1.0 INTRODUCTION

This is the non-technical summary of the Environmental Impact Assessment ('EIA') Report has been prepared and coordinated by AWN Consulting ('AWN') alongside various subject matter experts on behalf of Lismore Homes Limited ('the Applicant') to accompany this Strategic Housing Development ('SHD') to An Bord Pleanála ('ABP').

The development ('the proposed development') will consist of the construction of 1,007 residential apartments (consisting of 58 no. studio units, 247 no. 1 bedroom units, 94 no. 2 bedroom 3 person units, 563 no. 2 bedroom 4 person units, and 45 no. 3 bedroom units), communal residential community rooms, and a ground floor creche in 16 no. buildings with heights varying from 4 to 12 storeys, basement and surface level car parking, secure bicycle parking, landscaping, water supply connection at Red Arches Road, and all ancillary site development works on a site located in the townland of Stapolin, Baldoyle, Dublin 13. The development lands is a c. 6.1 hectares plot of partially greenfield, partially brownfield land located in the townland of Baldoyle-Stapolin, Dublin 13 ('the Site'). The lands are bound by existing and proposed residential areas to the west and south, and the future Racecourse Park to the north and northeast. The Site is also referred to as the Growth Area 2 ('GA2') Lands in *the Baldoyle-Stapolin Local Area Plan 2013 (as extended)* and which forms part of the wider landholding of lands formerly known as the Coast residential community that has been planned on c. 41 hectares of residential zoned land around Clongriffin DART station. The Site and surrounding site context is shown on Figure 2.1 below.



**Figure 1.1** Proposed Development Lands (indicative application boundary in red) (Source: Google Earth)

## 1.1 RELEVANT LEGISLATIVE REQUIREMENT FOR ENVIRONMENTAL IMPACT ASSESSMENT

Ireland's type of projects for which an EIA is mandatory is set out in the Schedule 5 Part 1 and Part 2 of the Planning and Development Regulations. The EPA Guidance (2017) requires an assessment beyond the general description of the project and to consider the component parts of the project and/or any processes arising from it. In considering the wider context and the component parts of the proposed development AWN have identified the thresholds of relevance to the proposal from Part 2 of Schedule 5; which are set out below:

### 10. Infrastructure projects –

*(b)(i) Construction of more than 500 dwelling units;*

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

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

For the project types Class 10 (a) to (m) an EIA is mandatory only if the project equals or exceeds, as the case may be, a limit, quantity or threshold set out.

Under Class 10(b)(i) the threshold is '*more than 500 dwelling units*'. Under Class 10 (b)(iv) the appropriate threshold is considered to be '*10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere*'. The Site location is on the edge of the transition between residential and greenfield; the pragmatic approach is to consider the area to be 'part of a built-up area'.

The total site area for the proposed works is c. 6.1 hectares (ha), and the proposed development comprises 1007 no. dwelling units. The Site location is not within a business district but is within a built-up area. The proposed development exceeds the limit, quantity or threshold set out in Class 10(b)(i); therefore, an EIA is mandatory.

## 1.2 FORMAT OF THIS ENVIRONMENTAL IMPACT ASSESSMENT REPORT

This EIA Report has been prepared in accordance with the most relevant guidance and legalisation, including the following:

- EIA Directive (2011/92/EU) as amended by EIA Directive (2014/52/EU)
- Planning and Development Act 2000 (as amended)
- Planning and Development Regulations 2001 (as amended)
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning and Local Government, 2018)
- Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2017)
- Guidance on the preparation of the Environmental Impact Assessment Report (European Union, 2017)
- Draft Advice Notes for Preparing Environmental Impact Statements (EPA, 2015)

This report has been laid out using the grouped format structure, the EIA Report examines each environmental factor in a separate chapter (the chapters are listed in Chapter 1). The EIA chapters have been prepared by a suitably qualified expert(s) and have considered the construction and operational phases of the proposed development under the following headings:

- Assessment Methodology;
- Receiving Environment;
- Characteristics of the Proposed Development;
- Potential Impacts of the Proposed Development;
- Remedial and Mitigation Measures;
- Predicted Impacts of the Proposed development
- Monitoring or Reinstatement; and
- Cumulative Impacts of the Proposed Development.

While the EIA has the focus on the proposed development, each specialist chapters also considers the potential cumulative impact (as far as practically possible) of the proposed development with the any future development and the cumulative impacts with developments in the locality (including planned and permitted developments). Furthermore, Chapter 18 of this report shows where Interactions between environmental factors have been identified and how they have been addressed.

### **1.2.1 Consultation and Scoping**

The Applicant and the project team have liaised with the relevant departments of Fingal County Council (FCC) and An Bord Pleanála (ABP) in advance of lodgement of this application.

In accordance with Section 5(2) of the Planning and Development (Housing) and Residential Tenancies Act, 2016 and pursuant to Section 247 of the Planning and Development Act, 2000 as amended, the Prospective Applicant's design team attended by Microsoft Teams pre-planning meetings with Fingal County Council, on 2nd September 2020, and 16th December 2020. The relevant planning and technical issues relating to the development proposals were identified and discussed between the design team and their respective opposite number in FCC.

In accordance with Section 5 of the Planning and Development (Housing) and Residential Tenancies Act 2016 and the Planning and Development (Strategic Housing Development) Regulations, 2017, a pre-application consultation request was submitted to An Bord Pleanála on 4<sup>th</sup> March 2021. A tri-partite Meeting was held with Fingal County Council, An Bord Pleanála, and the prospective applicant's design team on 20<sup>th</sup> May 2021. An Bord Pleanála issued its opinion on the 24<sup>th</sup> June 2021.

In addition, relevant specialists in the proposed development project team have liaised with statutory bodies (including the Water Services, Roads/Transportation, National Parks and Conservation, Irish Water and ESB, by correspondence during the course of the EIA Report preparation.

The structure, presentation and the non-technical summary of the EIAR, as well as the arrangements for public access, all facilitate the dissemination of the information contained in the EIAR. A core objective is to ensure that the public and local community are aware of the likely environmental impacts of projects prior to the granting of consent.

Informal scoping of potential environmental impacts was undertaken with the Planning Authority through pre-application meetings. Public participation in the EIA process will be effected through the statutory planning application process. Information on the EIAR has also been issued for the Department of Housing, Planning and Local Government's EIA Portal.

A copy of this EIAR document and Non-Technical Summary of the EIAR document is available for inspection and/or purchase at the offices of Fingal County Council (the relevant Planning Authority) at a fee not exceeding the reasonable cost of reproducing the document.

## **1.2.2 Contributors to the Environmental Impact Assessment Report**

The preparation and co-ordination of the EIA Report has been completed by AWN in conjunction with experienced subject matter experts. The role and responsibility of each contributor, their qualifications and relevant experience are detailed in Chapter 1 (Introduction) of this EIA Report.

## **1.3 ADDITIONAL ASSESSMENTS**

The additional reports and/or assessments required under Legislation or EU Directives other than the Environmental Impact Assessment Directive in respect of the proposed development are described below:

### **1.3.1 The Floods Directive (Directive 2007/60/EC)**

A Site-Specific Flood Risk Assessment (FRA) has been prepared by JBA Consulting in accordance with the Planning System and Flood Risk Management Guidelines for Local Government (2009). This Site-Specific FRA is included with the planning application and is included as Appendix 7.2 to Chapter 7 (Hydrology), in addition to the FRA a 'Statement of Consistency with Ministerial Guidance The Planning and Flood Risk Management Guidelines for Local Authorities (2009)' (JB Barry) is included with the application documents.

### **1.3.2 Habitats Directive (Directive 92/43/EEC) and Birds Directive (Directive 2009/147/EC)**

The environmental sensitivity of the proposed development site in respect of Natura 2000 sites designated pursuant to the Habitats Directive and the Birds Directive been considered with reference to the application Appropriate Assessment Screening, and Natura Impact Statement (NIS) which comprises an initial impact assessment of a project; examining the direct and indirect impacts that it might have on its own or in combination with other plans and projects, on one or more Natura 2000 sites in view of the Sites' conservation objectives. The '*Appropriate Assessment Screening & Natura Impact Statement - Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA for a proposed development at Baldoyle-Stapolin Growth Area 2 (GA2), Baldoyle, Dublin 13.*' that has been prepared for the proposed development by Altemar Environmental Consultants is included with the planning application documents, and as Appendix 8.1 to Chapter 8 (Biodiversity).

## 2.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Description of the Proposed Development (Chapter 2) presents the description of the project comprising information on the Site, design, size and other relevant features of the project. The scope of this chapter aligns with the legalisation and guidance material as set out in the EIA Directive (2011/92/EU) as amended by EIA Directive (2014/52/EU), as well as the relevant EPA guidance documents *Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2017) and *Draft Advice Notes for Preparing Environmental Impact Statements* (EPA, 2015).

This chapter summarises the existing site, the proposed development, and the existence of the project as set out within the *Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2017). This guidance advises that description of the existence of the project should define all aspects of the proposed lifecycle of the facility, including:

- Description of Construction;
- Description of Commissioning;
- Operation of the Project;
- Changes to the Project; and
- Description of Other Related Projects.

This chapter draws on and has been informed by the Project Design and summarises the key relevant details of the proposed development and its lifecycle as it relates to EIA Report

The Site of the proposed development is c. 6.1 hectares located at Baldoyle-Stapolin, Dublin 13. The Site forms part of a substantial area of undeveloped residential zoned land within Baldoyle-Stapolin.

The wider area is characterised by a predominantly residential uses as the Site surrounded by the residential centres of Donaghmede, Bayside and Clongriffin. The coastal towns of Portmarnock and Malahide are located further to the north. The Mayne Marsh Conservation Area and Baldoyle Estuary Nature Reserve is located beyond the future Racecourse Regional Park; these areas (including the bay itself), form part of the Baldoyle Bay Special Protection Area (SPA), Special Area of Conservation (SAC), proposed Natural Heritage Area (pNHA), and Ramsar Convention Wetland.

There are no notable mapped surface water courses on or bordering the Site, the lands are drained to ground or through the existing surface water sewers that present in the roads on Site. The Maynetown Stream and Snugborough Stream are situated to the west and flowing in a northerly direction towards the Mayne River which is located to the north of the Site.

The proposed development Site and surrounding site context is shown on Figure 2.1 below including the indicative redline for this application.



**Figure 2.1** Site Location and Context; indicative site boundary in red (Source: Google Maps)

The Site is located to the south of the proposed Racecourse Park (c. 80 hectares), east of the Dublin-Belfast / DART railway line and Clongriffin rail station, north of Growth Area 1 ('GA1') and east of Growth Area 3 ('GA3'), as designated in the LAP. The proposed development site is effectively Growth Area 2 ('GA2') *Baldoyle-Stapolin Local Area Plan (LAP) 2013 (as extended)*.

The development will consist of the construction of 1,007 apartments (consisting of 58 no. studio units (38.1 – 52.3 sq.m.), 247 no. 1 bedroom units (48.9 – 79.7 sq.m.), 94 no. 2 bedroom 3 person units (67.3 – 80.42 sq.m.), 563 no. 2 bedroom 4 person units (77.7 – 106.1 sq.m.), and 45 no. 3 bedroom units (93.5 – 130.66 sq.m.), 6 no. communal residential community rooms, and a ground floor creche in 16 no. buildings with heights varying from 4 to 12 storeys, basement and surface level car parking, secure bicycle parking, landscaping, water supply connection at Red Arches Road, and all ancillary site development works.

In addition to the proposed residential units there will be a number of support and complimentary provisions such as childcare / creche, communal residential community rooms/facilities, landscaping and communal open space.

Car parking is provided for residential uses, 605 no. basement spaces, and 124 no. Surface/Visitor Car Parking Spaces; as well as 14 no. Surface /Long-term/Short-term/Drop-off Car Parking Spaces dedicated to the Creche facility. In addition to the car parking, cycle parking is proposed for 1,754 no. Surface Residential Cycle Parking Spaces; and 500 no. Surface Visitor Cycle Parking Spaces.

The proposed development has been designed by skilled personnel in accordance with internationally recognised standards, design codes, legislation, good practice and experience.

### 3.0 PLANNING AND DEVELOPMENT CONTEXT

The Planning and Development Context Chapter (Chapter 3) identifies the national, regional and local planning policy and context applicable to the proposed development. The proposed development is located within the administrative area of Fingal County Council (“FCC”).

The National and Regional Planning Context has been described in the Planning Report produced by Kiaran O’Malley and Company Limited (KOM, 2022) and included with the application documentation.

This chapter outlines the Local Planning and Development Context and the interaction with the specialist chapters of this EIA report.

The Fingal County Council, Dublin City Council and An Bord Pleanála online planning search system was consulted for the previous 5 years to generate a list of granted planning permissions from the area surrounding proposed development. Table 3.1 of Chapter 4 shows the notable applications granted permission within that period.

### 4.0 ALTERNATIVES

The Alternatives Chapter (Chapter 4) of the EIA Report describes reasonable ‘alternatives’ for projects with regard to their environmental effects addressing:

- Do Nothing Alternative;
- Alternative project locations;
- Alternative designs/layouts;
- Alternative processes; and
- Alternative mitigation.

This chapter describes the alternatives that were considered for the proposed development, where applicable, under each of these headings and the reasons for the selection of the chosen option including consideration of environmental effects.

#### Do Nothing Alternative

In the event that the Proposed Development does not proceed, the specific need for this commercial, amenity and residential development would still exist for the site, and as such the Proposed Development would need to be built elsewhere.

#### Alternative Project Locations

Given the current zoning of the site, the surrounding land uses, the proximity to similar associated developments, and the availability of necessary services and infrastructure, the Proposed Development is the most appropriate use for the site.

### Alternative Design/Layouts

The design evolved as part of a multi-disciplinary process with input from the EIAR Team, design team, Applicant and advice received as part of the pre-planning process with representatives of Fingal County Council and An Bord Pleanála. The Design Statement prepared by CCH Architects included with the application sets out the iterative design process undertaken to address the feedback received.

### Alternative Processes

The flexibility to select alternative processes is limited for this type of development as opposed to an activity that has more complex equipment and processes. Notwithstanding this the applicant did include a number of renewable energy measures in the design of the site.

### Alternative Mitigation

The most appropriate mitigation has been decided through an analysis of the existing environment, likely impacts of the proposed development, relevant guidance, legislation, and the range of mitigation measures available to address the potential impact.

## 5.0 HUMAN HEALTH AND POPULATION

This chapter has been prepared to assess the likely impacts associated with Human Health and Population for the proposed development. As referenced in the Department of Housing, Planning and Local Government (2018) *Guidelines for Planning Authorities and An Bord Pleanála*, (taken from the European Commission's Environmental Impact Assessment of Projects: Guidance on the Preparation of the Environmental Impact Assessment Report (2017)), human health is;

*“a very broad factor that would be highly project dependent. The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the Project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study. In addition, these would concern the commissioning, operation, and decommissioning of a Project in relation to workers on the Project and surrounding population.”*

The EPA Draft EIAR Guidelines advise that *“in an EIAR, the assessment of impacts on population and human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in this EIAR e.g. under the environmental factors of air, water, soil etc.”*

Issues examined in this chapter include demography; population; employment; social infrastructure; landscape, amenity and tourism; natural resources; land, soil, geology and hydrogeology; hydrology; air quality; noise and vibration; material assets; microclimate; traffic and health and safety.

The assessment of significance is a professional appraisal based on the sensitivity of the receptor and the magnitude of effect.

The proposed development site is located in County Dublin, and in the Electoral Divisions (ED) of Baldoyle (ED 1227). The area selected for the assessment of the impact on human health has been defined as the ED of Baldoyle (ED 1227). And the adjacent division of Grange B (ED 3449).

As defined by the Nomenclature of Territorial Units for Statistics developed by Eurostat the site is located within NUTS3 Code, Dublin (IE061), that comprises of the county of Dublin. The site is within the administrative area of Fingal County Council.

The residual impact on Businesses and Residences during construction in the absence of mitigation (by design) are due to the removal of vegetation is **negative, moderate and long term**.

There are no significant potential impacts on Amenity and Tourism; therefore there are no residual impacts.

There are no significant potential impacts on Natural Resources and Material Assets; therefore there are no residual impacts.

As detailed in Chapter 9 (Air Quality and Climate), best practice mitigation measures are proposed for the construction phase of the proposed development which will focus on the pro-active control of dust and other air pollutants to minimise generation of emissions at source. The mitigation measures that will be put in place during construction of the proposed development will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of construction of the proposed development is likely to be **negative, short-term, localised and imperceptible** with respect to human health.

As detailed in Chapter 12 (Noise and Vibration), during the construction phase for the nearest noise sensitive locations within 20 m of the proposed development, negative, significant and temporary effects are likely. For the majority of noise sensitive locations at greater distances from the proposed development, negative, moderate and short-term effects are likely.

With the application of mitigation measures building services noise as described in Chapter 12 (Noise and Vibration), the range of potential noise levels is not expected to add significantly to the existing noise environment. The resultant noise effect from this source will be of neutral, not significant, long-term impact.

The overall residual impact during the construction phase of the proposed development on traffic and transportation, after the implementation of mitigations measures outlined in Chapter 15, Section 15.6.1 will be **short term, not significant and neutral**.

The overall residual impact during the operational phase of the proposed development on traffic and transportation, after the implementation of mitigations measures outlined in Chapter 15, Section 15.6.2 will be **long-term, not significant and neutral**.

There are no significant potential impacts on Human Health from Health and Safety and/or Major Accident Hazards; therefore there are no residual impacts.

## 6.0 LAND, SOILS, GEOLOGY AND HYDROGEOLOGY

This chapter assesses and evaluates the potential impacts of the proposed project on the geological and hydrogeological environment.

On-site investigations undertaken by GII in 2019 & 2020 (BSM, 2021) directly to the west and east of the proposed site show bedrock is > 8.0 metres below ground level (mbgl) and comprises strong, medium to thinly bedded, grey, fine-grained limestone as per the Geological Survey of Ireland (GSI) mapping. The limestone is classified by the GSI as a Locally Important Bedrock Aquifer (LI), which is described as 'moderately productive only in local zones'. All of the samples collected during the Site investigations referenced above can be categorised as inert (as per Council Decision annex 2003/33/EC) (BSM, 2021). There was no evidence of waste deposited on-site during Site investigation works.

The Groundwater Body (GWB) underlying the Site is the Dublin GWB (EU Groundwater Body Code: IE\_EA\_G\_008). Currently, the EPA (2021) classifies the Dublin GWB as currently being under review. Previously the Dublin GWB was recorded as having a 'Good Status' in the last WFD cycle (2013-2018).

Based on the NRA/IGI criteria for rating the importance of hydrogeological features the importance of the hydrogeological features at this site is rated as Medium Importance. This is based on the assessment that the attribute has a medium quality significance or value on a local scale. The aquifer beneath the Site is a locally important (LI) bedrock aquifer, Bedrock which is Generally Moderately productive. It is not used for public water supply or widely used for potable use and is well protected (low vulnerability).

Construction works will require the removal of soils/stones excavations are to a maximum depth of 1-2 mbgl. The aquifer vulnerability is classified as 'Low' throughout the Site area based on site investigations with circa >8.0 m of overburden recorded. Due to the thickness of the overburden the underlying hydrogeological environment will have significant protection from surface infiltration during construction. Temporary storage of soil will be carefully managed to prevent any potential negative impact on the receiving environment particularly the Mayne River, nearby SAC wetlands and any surface water drains/ gully's. This material will be stored away from the surface water drainage network. Movement of material will be minimised in order to reduce degradation of soil structure and the generation of dust.

It is not proposed to remove any excavated material offsite. It will be visually assessed for signs of possible contamination such as staining or strong odours.

During construction of the development, there is a risk of accidental pollution incidences spillage or leakage of oils and fuels from construction machinery or site vehicles; and run-off from concrete and cement works.

There will be no direct discharges to the ground or abstractions from the aquifer during the operation of the development. The potential impacts of the development operation in relation to land soils and environment have been considered in respect of Accidental Emissions and Reduction in Local Recharge to Groundwater. There will be no bulk storage of fuel required for the operation of the proposed residential development. There will be an increase in hardstanding at the proposed Project site. The impermeable surface will minimise the potential influx of any contaminants into soils and underlying groundwater.

Following implementation of mitigation measures detailed in Chapter 6 of the EIA Report, the predicted impact during construction of the proposed development will be short-term, imperceptible and neutral.

Following implementation of the mitigation measures, the predicted impact on land, soils and geology once the development is constructed and operational (in accordance with EPA Draft EIA Guidelines, 2017) is considered to be long-term, imperceptible with a neutral effect on quality. There will be no emissions to ground or the underlying aquifer from operational activities.

## 7.0 HYDROLOGY

AWN Consulting has prepared this chapter of the EIAR which assesses and evaluates the potential impacts on the surrounding water and hydrological environment. In assessing likely potential and predicted impacts, account is taken of both the importance of the attributes and the predicted scale and duration of the likely impacts.

The proposed development is located within the previously defined Eastern River Basin District (ERBD), now the Ireland River Basin District, in Hydrometric Area No. 09 of the Irish River Network. It is within the River Liffey catchment and Mayne Sub-catchment (Mayne\_SC\_010). The River Liffey catchment encompasses an area of approximately 1,369 km<sup>2</sup>. The River Liffey extends from the mountains of Kippure and Tonduff in County Wicklow to the sea at Dublin Bay. The main channel covers a distance of c. 120 km west to east. The Snugborough Stream lies 650 m to the east and the Mayne River lies 550 m to the north (EPA designations). The Snugborough rises to the south and is culverted between Seagrang Park and the Red Arches Road.

In accordance with the WFD, each river catchment within the former Eastern River Basin District (ERBD) was assessed by the EPA and a Water Management Plan detailing the programme of measures was put in place for each. Currently, the EPA classifies the WFD risk score of 1a, 'At risk of not achieving good status' for the River Mayne. The WFD Status for the Mayne River waterbody was previously denoted as 'Poor' (2nd Cycle Status 2013-2018). The transitional waterbodies of the Mayne Estuary and North Bull Island WFD status is currently 'under review' and these had a of "Moderate" for the previous cycle (2013 – 2015). The Irish Sea Dublin (HA 09) and the Dublin Bay Coastal Waterbodies to the east and south-east of the Site have a 'Good Status' and are listed as 'Not at Risk' by the EPA.

The closest Natura 2000 site is Baldoyle Bay SAC, which is 350 m northeast from the proposed development. The nearest SPA is the Baldoyle Bay SPA, which is located 700 m from the site. There are no designated Natural Heritage Areas (NHA) within a 15 km radius; however, the Baldoyle Bay pNHA is located c. 400 m from the Site.

The proposed development was subject to Site Specific Flood Risk Assessment (SSFRA) undertaken by JBA Consulting Ltd in accordance with OPW Flood Risk Management Guidelines and is included as Appendix 7.2.

This Flood Risk Assessment, contains a hydraulic study of the Mayne River, has been carried out (as required by Objective FRM3 of the Baldoyle-Stapolin LAP). Reference to the basements is contained in Section 5.3 of the Flood Risk Assessment as required by Objective FRM4 of the Baldoyle-Stapolin LAP.

There are no open water features within the Site of the proposed development. The nearest rivers and open water are 550 m from the Site (refer to Figure 7.1). However,

currently stormwater is discharged to the Mayne River from the proposed site, which discharges into the Malahide Estuary (via overland flows and historical surface water system). Based on the NRA criteria for rating the importance of hydrological features (refer to Appendix 7.1), the features at this site are rated as being of high importance due to the River Mayne's biotic index and a section of the river being within a protected European site.

AWN Consulting have prepared an *Outline Construction Environmental Management Plan (CEMP)* (Appendix 7.5). All mitigation measures outlined therein will be implemented, as well as any additional measures required pursuant to planning conditions which may be imposed. The construction phase mitigation measures set out in the CEMP, these will be implemented by the construction Contractor to ensure that pollution and nuisances arising from site clearance and construction activities is prevented where possible and managed in accordance with best practice environmental protection.

The Construction Surface Water Management Plan prepared by AWN (Appendix 7.4) aims to set out the proposed procedures and operations to be utilised on the proposed construction site to protect water quality. The mitigation and control measures outlined in the SWMP will be employed on site during the construction phase. All mitigation measures outlined within the SWMP will be implemented during the construction phase, as well as any additional measures required pursuant to planning conditions which may be imposed.

The implementation of mitigation measures detailed in Chapter 7 of the EIA Report will ensure that the potential impacts on the surface water environment do not occur during the construction phase and that the residual impact will be short-term-imperceptible-neutral.

Following implementation of the mitigation measures proposed in Section 7.6 the predicted impact on the surface water environment once the development during the construction phase (in accordance with EPA Draft EIA Guidelines, 2017) are considered to be likely, neutral, imperceptible, and short-term and neutral, imperceptible and long-term during the operational phase.

## 8.0 BIODIVERSITY

This Chapter of the EIAR was prepared by Altamar Ltd. and assesses the biodiversity value of the proposed Project area and the potential impacts of the proposed Project on the ecology of the surrounding area within the potential zone of influence (ZOI). The project is limited in scale and extent and the potential zone of influence is restricted to the immediate vicinity of the proposed development. However, in the absence of mitigation measures there is potential for silt laden material or pollution to enter nearby watercourses and impact on local biodiversity and European sites immediately downstream from the works.

This Chapter also outlines the biodiversity value of the site, the potential for impacts and the standard construction, operational and monitoring measures that will be in place to minimise potential impacts and to improve the biodiversity potential of the proposed development project. Desk studies were carried out to obtain relevant existing biodiversity information within the Potential Zone of Influence (ZOI). The assessment extends beyond the immediate proposed Project Site to include those species and habitats that are likely to be impacted upon by the proposed Project.

Portions of the site consists of cleared land (2009) that is recolonising. Access roads are existing on site. Grassland habitats on site are succumbing to are succumbing to scrub. The Site is relatively poor in biodiversity value. No rare or protected habitats were noted. No protected terrestrial fauna or flora were noted. Records of rare and threatened species from NPWS were examined. No rare or threatened plant species were recorded in the vicinity of the Site of the proposed Project. A single tree of bat roosting potential was noted on site and minor bat activity of a Soprano pipistrelle (*Pipistrellus pygmaeus*) was also noted. Snipe (*Gallinago gallinago*), which is red-listed (of high conservation concern) per the Birds of Conservation Concern in Ireland (2020 – 2026) (“BoCCI4”) and has been noted proximate to, but not within, the proposed Project site. This species is not a qualifying interest of Baldoyle Bay SPA. Grey Heron (*Ardea cinerea* – green conservation status) and Herring Gull (*Larus argentatus* – BoCCI4 amber-listed (of medium conservation concern)) have also been observed proximate to the site. Neither species are recognised as a qualifying interest of Baldoyle Bay SPA. No works are proposed in the vicinity of the Mayne River where roosting habitat was noted. During the non-wintering bird assessments, no birds of conservation importance were noted on-Site. The Site is deemed not to be an important area for wintering or breeding birds.

The proposed Project is not wholly or partly within a designated conservation site. However, Baldoyle Bay SAC, SPA, pNHA and Ramsar site are proximate to the Site, and there is a direct pathway from the proposed Project to the designated sites via the existing attenuation pond and Mayne River. Noise from the construction phase would be localised to the vicinity of the works and would not impact on the qualifying interests of the Baldoyle Bay SPA, which is 0.55 km from the Site. It should also be noted that the existing busy coastal road (R106) is located between the proposed Project and the Baldoyle Bay SPA, which is 0.55 km from the Site. Works have the potential to lead to silt-laden and contaminated run-off entering the downstream attenuation pond and Mayne River, with potential downstream impacts on designated sites. Ensuring water quality and compliance with the Water Pollution Acts, as set out in the SWMP, would be seen as the primary method of ensuring no significant impact on watercourses and designated sites.

Once constructed, all on-Site drainage will be connected to separate foul and surface water systems. Surface water run-off will comply with SUDS. The biodiversity value of the Site would be expected to improve as the landscape measures mature. It would be expected that the localised ecological impacts in the long-term would be neutral once the landscape has established. The presence of additional residents in the vicinity of Baldoyle Bay may result in an increase of disturbance of biodiversity within the Baldoyle SPA and SAC.

During construction and operation mitigation measures will be incorporated into the proposed Project to minimise the potential negative impacts on the ecology within the ZOI. These measures are outlined below in sequence, and incorporate elements outlined elsewhere in this EIAR. The main potential vector for impacts to designated sites and aquatic ecology outside the proposed Project Site would be via the direct pathway to the Mayne River via the surface water network which discharges into the newly constructed wetland area (consented under FCC Reg Ref.: F16A/0412). The wetland discharges to the Mayne River and ultimately to Baldoyle Estuary through a series of flap valves. Mitigation measures will in place to protect the biodiversity and designated sites. An Ecological Clerk of Works will be appointed to oversee works and will be appointed prior to works commencing on-Site. A Construction Surface Water Management Plan and Construction Environmental Management Plan have been prepared. In order to mitigate the additional people on site additional open space has been provided. The applicant has identified c. 6.14 hectares of land for the provision

of Class 1 and 2 public open space for the proposed development. This comprises c. 5.1 hectares for Class 1 public open space at Mayne Road. The land identified for Class 1 public open space is within Fingal County Council's current application for approval to An Bord Pleanála under Section 177AE of the Planning and Development Act 2000 (as amended) to carry out a park development project at the Racecourse Park located between Baldoyle and Portmarnock, Co. Dublin. The minimum requirement for Class 1 public open space in relation to the scale of the proposed development is 3 hectares, therefore the proposed development is indicating 2.1 hectares in excess of the minimum requirement.

The overall residual impact of the proposed Project on biodiversity will be a long-term, slight, minor adverse, not significant impact. This is primarily as a result of the loss of terrestrial habitats on-Site (of poor biodiversity importance), supported by the creation of additional terrestrial biodiversity features, mitigation measures and landscaping strategy in an area of existing development.

## 9.0 AIR QUALITY AND CLIMATE

AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on air quality and climate associated with the proposed development located in the townland of Stapolin, Baldoyle, Dublin 13.

In terms of the existing air quality environment, data available from similar environments indicates that levels of nitrogen dioxide (NO<sub>2</sub>), particulate matter less than 10 microns and particulate matter less than 2.5 microns (PM<sub>10</sub>/PM<sub>2.5</sub>) are, generally, well within the National and European Union (EU) ambient air quality standards.

The existing climate baseline can be determined by reference to data from the EPA on Ireland's total greenhouse gas (GHG) emissions and compliance with European Union's Effort Sharing Decision "EU 2020 Strategy" (Decision 406/2009/EC). The EPA estimate that Ireland had total GHG emissions of 57.70 Mt CO<sub>2</sub>eq in 2020 with 44.38 MtCO<sub>2</sub>eq of emissions associated with the ESD sectors for which compliance with the EU targets must be met. This is 6.73 Mt CO<sub>2</sub>eq higher than Ireland's annual target for emissions in 2020. Emissions are predicted to continue to exceed the targets in future years.

Impacts to air quality and climate can occur during both the construction and operational phases of the proposed development. With regard to the construction stage the greatest potential for air quality impacts is from fugitive dust emissions impacting nearby sensitive receptors. Impacts to climate can occur as a result of vehicle and machinery emissions. In terms of the operational stage air quality and climate impacts will predominantly occur as a result of the change in traffic flows on the local roads associated with the proposed development.

Any potential dust impacts can be mitigated through the use of best practice and minimisation measures which are outlined in Chapter 9. Therefore, dust impacts will be short-term and imperceptible at all nearby sensitive receptors. It is not predicted that significant impacts to climate will occur during the construction stage. Construction stage impacts to climate are predicted to be short-term, neutral and imperceptible.

The local air quality modelling assessment of operational phase traffic concluded that levels of traffic-derived air pollutants resulting from the development will not exceed the ambient air quality standards either with or without the proposed development in

place. Using the assessment criteria outlined in Transport Infrastructure Ireland's guidance document 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (2011) the impact of the development in terms of NO<sub>2</sub> is long-term, localised, negative and imperceptible to slight.

The proposed development is not predicted to significantly impact climate during the operational stage. Increases in traffic derived levels of CO<sub>2</sub> have been assessed against Ireland's EU GHG targets. Changes in CO<sub>2</sub> emissions are significantly below the EU targets and therefore the climatic impact in the operational stage is considered long-term, negative and imperceptible. In addition, the proposed development has been designed to minimise the impact to climate where possible during operation.

The best practice dust mitigation measures that will be put in place during construction of the proposed development will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of construction of the proposed development is likely to be short-term, localised, negative and imperceptible with respect to human health. Operational phase predicted concentrations of pollutants are predicted to be significantly below the EU standards, the impact to human health is predicted to be imperceptible, negative and long term.

No significant impacts to either air quality or climate are predicted during the construction or operational phases of the proposed development.

## 10.0 MICROCLIMATE WIND

A desk-based assessment of the wind microclimate around the proposed buildings of the Growth Area 2 development has been carried to consider the potential pedestrian level wind effects. This assessment is based upon the professional opinion of an experienced BRE wind engineering expert who is a Chartered Civil and Structural Engineer with over 40 years of experience in this field. This approach is widely accepted by planners and developers as being an appropriate methodology to support planning applications.

The conclusion from this assessment is that the buildings of the Growth Area 2 development will be well sheltered from the prevailing south westerly wind by the configuration of the proposed building massing, the proposed landscaping features and the surrounding existing buildings. The ground level wind microclimate around the buildings of the proposed Growth Area 2 development is expected to be suitable for the intended pedestrian activities of Strolling on all footpaths and walkways and Long-term sitting in the public realm courtyard areas during the summer months. No wind mitigation measures are expected to be required.

## 11.0 MICROCLIMATE SUNLIGHT DAYLIGHT

The potential loss of daylight and sunlight to existing buildings and gardens following construction of the Proposed Development has been analysed and compared with the guidance in the BRE Report 'Site layout planning for daylight and sunlight: a guide to good practice'. There would be a minor adverse loss of daylight impact to some existing properties at Willow, Birch, Sycamore and Beech Houses. The primary cause of the loss of daylight is due to the design of the existing buildings themselves. Windows set back into the building with balconies or overhangs above force a reliance on daylight from the area of the proposal site. At other existing properties on Red Arches Park and

Red Arches Drive there would be a negligible impact. Loss of sunlight would not be an issue to existing buildings, as the development site is to the north.

There would be a negligible impact on daylight to the consented GA1 scheme. Loss of sunlight would not be an issue since the proposed development site is to the north.

When compared to the existing empty site there would be a significant impact to daylight to the east facing façade of GA3. However, this would only be the case if future residents of GA3 experienced conditions with the empty GA2 site. Special measures of larger windows are in place in the design of GA3 and any reduced values of vertical sky component may be at least partly due to its balconies. A separate daylight and sunlight analysis submitted as part of the GA3 application suggested that daylight would be adequate in the area facing GA2. The BRE Report also suggest the guidelines should be interpreted flexibly. In special circumstances a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.

At the Proposed Development 93% of rooms would meet the recommendations in the UK National Annex of EN17037 using the bedroom target and living room target for combined living/dining/kitchen or studio areas. 83% of rooms meet these recommendations with the higher kitchen target used for combined spaces. The overall results are similar using the older BS8206 standard.

The analysis suggests the majority of living areas below the recommendations would have access to a balcony area. The requirements may need to be balanced with other benefits of the scheme. For example, the removal of balconies would mean occupants would not have private amenity and increased glazing could create privacy concerns.

Overall, analysis of sunlight provision to rooms suggests that around 70% of proposed units will have at least one habitable room able to receive at least the minimum 1.5 hours sunlight recommendation in EN 17037.

Sunlight provision to courtyards has also been assessed. All courtyards would meet the BRE guidelines as more than half of their areas would be able to receive more than two hours of sunlight on 21st March.

## 12.0 NOISE AND VIBRATION

The existing noise climate has been surveyed during both daytime and night-time periods and has been found to be typical of an area away from major routes. Prevailing noise levels are primarily due to distant road traffic movements and aircraft.

### Construction Phase

There is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the construction phase of a project. Local Authorities typically control construction activities by imposing limits on the hours of operation and consider noise limits at their discretion.

Indicative calculations of the worst-case construction noise emissions have been prepared using guidance set out in the EIAR. At nearest noise-sensitive properties in St Marnock's Phase 1C, during periods where works are at close distances, worst-case noise levels are predicted to be above the threshold for significant impact during the general construction phase. Potential effects negative, significant and short-term.

At noise-sensitive locations at greater distances, from noise-generating construction activity, the predicted levels are below the criterion for a significant noise impact. Potential effects are negative, slight to moderate and short-term.

The application of binding noise limits, hours of operation, along with implementation of appropriate noise and vibration control measures, will ensure that noise and vibration impact are minimised.

### Operational Phase

The principal items of building and mechanical services plant will be for heating and ventilation of the buildings. These items and their location will be selected at the detailed design stage to ensure that noise emissions to sensitive receivers both external and within the development itself will be within the relevant criteria set out in Chapter. The effects are considered neutral, not significant and long-term.

The overall effect on environmental noise of increased traffic is considered to be negative, imperceptible to slight-moderate and long-term at nearby noise sensitive locations.

## **13.0 LANDSCAPE AND VISUAL**

The landscape and visual assessment of the proposed development appraises the effects the proposed development would have on the existing landscape of the site area in terms of quality of landscape. It includes an assessment of views into the site from outside and views out from the site.

The site is located in the townland of Stapolin, 1 km northwest of the town of Baldoyle and 300m east of Clongriffin DART station, situated in the south-eastern part of Fingal County. The site of the proposed development is part of a larger masterplan area, much of which has already been developed as residential communities within the Baldoyle Stapolin area, adjacent to Clongriffin Dart Station. The area is zoned R1 for new residential developments, as are the sites to the south of this application. To the north is a large area of green belt centred on the Mayne River and to the east is Baldoyle Bay, which is designated as a Special Area of Conservation (SAC) and Special Protection Area (SPA). Part of the site is designated 'Sensitive Landscape' in the Fingal County Development Plan.

The site is approximately 6.1 hectares in area and is mainly composed of a partially cleared development site. The site is on the fringe of a recently developed (over past 10-15 years) residential development area. The site has been colonised by the flora typical of waste ground, primarily grasses, weeds and pioneer shrubs. There are also some mature trees on the site, which are of moderate and low arboricultural value.

The proposed development consists of 16 no. buildings ranging from 4- to 12-storey in height. The layout follows the framework set out in the Baldoyle Stapolin Local Area Plan (2015, as extended). The buildings step up in height from the existing four-storey buildings at Red Arches Drive and the tallest buildings are along the edge of the green belt and planned Racecourse Park. The buildings are varied in form, height and materials. These buildings will be visible in the landscape from the roads around the site and further afield. Substantial numbers of new trees are proposed around the proposed buildings in both the public and private spaces associated with the new development. These trees will provide partial screening, shelter, privacy, scaling and will breaking up the building facades in views.

At construction stage, there will be temporary and short term negative landscape and visual effects associated with the construction site and construction plant, machinery and activity. Solid hoarding panels around the site will block views at ground level, but the height of the proposed buildings means that the construction works will be visible from the wider landscape. Five mature Sycamore trees will be removed from the site during construction, with five other trees in the same treeline to be retained. More than 500 trees are proposed to be planted here. In the longer term, the overall impact of the proposed trees will be a significant and positive effect on the tree cover in the area and the visual amenity of the new residential area.

In relation to visual impacts, in simple terms, where the views of the site are open from surrounding areas, or where the site is viewed across the green belt lands, visual impact is positive. This is because the new views will be of an urban landscape emerging above the new trees and a very deliberate building interface along the green belt, which varies in terms of height and materiality. Where the existing site is not visible and the only change to the views is that the new buildings are visible where currently there is open sky, this is considered to be a negative visual effect. This occurs primarily in views from the west and south of the site and from the south of Portmarnock, from where the proposed development will be visible.

In the context of the already granted developments of GA1 and GA3, the proposed development will either be screened by these developments or will add only a marginal change on the visual landscape from most vantage points. This is because these developments are closer to the viewers in almost all directions, or will form a coherent urban landscape with the proposed development in views. An exception to this is the residential buildings on Red Arches Drive and adjacent, to which the proposed development is directly adjacent. The people who live in these buildings will have positive visual impact because their current views of a partially developed, scrubby site will be replaced with a coherent residential neighbourhood with open spaces and streets all planted with large numbers of trees.

A set of photomontages were prepared by a specialist company and show the likely visual changes in the landscape. Please see Appendix 13.1.

## 14.0 ARCHAEOLOGICAL, ARCHITECTURAL AND CULTURAL HERITAGE

This chapter assesses the predicted impacts of the proposed development on archaeological, architectural and cultural heritage using a number of sources including the Record of Monuments and Places, the National Inventory of Architectural Heritage, the Fingal County Council Development Plan, the Excavations Database, cartographic and documentary sources.

There are eight recorded archaeological sites within c. 1km of the proposed development lands. Three of these were discovered during the course of development works and have been excavated. None of these sites will be impacted, either directly or indirectly, by the proposed development works. However, they are indicative of the landscape having been populated since at least the Bronze Age.

There are no recorded archaeological finds from the site, though stone axes and bronze artefacts found in the area suggests settlement in the Neolithic and Bronze Age.

Archaeological excavations in the area in advance of development works over the past two decades has also revealed a number of previously unrecorded archaeological

sites. The results of the excavation of these sites further indicate prehistoric and medieval settlement and activity in the area.

There are no architectural heritage structures within the site boundary or the wider study area, recorded in either the National Inventory of Architectural Heritage or the Record of Protected Structures.

A desk-top survey of the lands proposed for development did not identify any evidence of archaeological features within the development land.

The survey confirmed that the site of the proposed development has been significantly impacted by previous development. However, the nature of this impact in areas appears to be infill rather than excavation, such that the pre-development landscape may be preserved intact below the current ground level.

Therefore, should previously unrecorded sub-surface archaeological remains survive below the current ground level, then the proposed development will result in their removal.

Therefore, a programme of archaeological testing will be undertaken across the greenfield areas of the proposed development lands prior to the commencement of construction works, under license to the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht.

Should any features of archaeological potential be identified, then they will be assessed, and following consultation with the National Monuments Service, should it not be possible to preserve these in-situ, then they will be excavated in full (preservation by record) under license to the National Monuments Service.

*Please note that the recommendations given here are subject to the approval of the National Monuments Service, Department of the Culture, Heritage and the Gaeltacht.*

## 15.0 TRAFFIC AND TRANSPORTATION

The Traffic and Transport chapter of the EIAR examines the impacts of the proposed Baldoyle GA2 residential development on lands at Stapolin, Baldoyle North, Dublin 13. The assessment has addressed:

- Existing traffic behaviour;
- Trip generation associated with the proposed residential development;
- Traffic impact of the proposal; and
- Proposed car and bicycle parking.

Vehicle turning movement surveys were obtained at three junctions in the surrounding area, which captured all turning movements at the junctions. These locations were agreed with the Roads and Transportation Department of Fingal County Council and were considered to be the most relevant major external junctions on the surrounding road network to the site that would be directly affected by the proposed development. Due to the current Covid-19 restrictions, traffic in the surrounding area is less than normal. Therefore, historical traffic counts were obtained for each junction. The traffic survey at each junction was then factored up to 2021 figures to ensure consistency across all junctions.

Expected trip generation for the proposed residential development was estimated utilising the TRICS database. The analysis and operational assessment of the proposed residential development at the three junctions revealed that at present Junction 1- Hole in The Wall / Grange Road / R139 roundabout and Junction 2- Grange Road / Grange Rise / Longfield Road just begin to exceed their normal design threshold in 2021 but operate within their theoretical capacity of 1.0. Junction 3- Coast Road / Red Arches Road roundabout operates below the normal design threshold during the morning and evening peak hour considered.

In the year of opening (2026), Junction 3- Coast Road / Red Arches Road roundabout will continue to operate below the normal design threshold during the morning and evening peak hours. However, Junction 1- Hole in The Wall / Grange Road / R139 roundabout during the morning and evening peak hours and Junction 2- Grange Road / Grange Rise / Longfield Road during the morning peak hour will operate above the normal design threshold. It must be noted that this will be the case “Without” the development and “With” the development scenarios. However, the analyses indicate that the development will have an imperceptible impact on the Junctions.

The proposed development is well positioned within the Baldoyle Stapolin LAP lands to avail of excellent links to Clongriffin DART station and Dublin Bus routes as well as neighbouring phases of development and the two key junctions onto the external road network at Coast Road Roundabout and Grange Road signalised junction.

The parking strategy utilised is derived from “Sustainable Urban Housing: Design Standards for New Apartments”. As per the standards, it is proposed that car parking will be reduced due to the exceptional public transport and cycle facilities in the area.

This study concludes that from a traffic and road safety perspective, the proposed residential development as described herein, does not pose any significant residual impacts.

## 16.0 WASTE MANAGEMENT

AWN Consulting Ltd. carried out an assessment of the potential impacts associated with waste management during the construction and operational phases of the proposed development. The receiving environment is largely defined by Fingal County Council as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

During the construction phase, typical C&D waste materials will be generated which will be source segregated on-site into appropriate skips/containers, where practical and removed from site by suitably permitted waste contractors to authorised waste facilities. Where possible, materials will be reused on-site to minimise raw material consumption. Source segregation of waste materials will improve the re-use opportunities of recyclable materials off-site. Completion of the basement and construction of new foundations, basements and the installation of underground services will require the excavation of between c. 135,000m<sup>3</sup> of material, it is anticipated that 6,000m<sup>3</sup> of this excavated material will be able to be reused onsite. The remaining balance of excavated materials, which is either unsuitable for use or not required for use in landscaping, will be exported off site. Excavated material which is to be taken offsite will be taken for offsite reuse, recovery, recycling and/or disposal.

A carefully planned approach to waste management and adherence to the site-specific Construction and Demolition Waste Management Plan (Appendix 16.1) during the construction phase will ensure that the effect on the environment will be **short-term, neutral and imperceptible**.

During the operation phase, waste will be generated from the residents as well as the commercial tenant. Dedicated communal waste storage areas have been allocated throughout the development for residents. The residential waste storage areas have been appropriately sized to accommodate the estimated waste arisings in both apartments and shared residential areas. The commercial tenant (creche) has their own commercial WSA allocated, separate from residential WSAs. The waste storage areas have been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from the designated waste collection areas by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.

An Operational Waste Management Plan has been prepared which provides a strategy for segregation (at source), storage and collection of wastes generated within the development during the operational phase including dry mixed recyclables, organic waste, mixed non-recyclable waste and glass as well as providing a strategy for management of waste batteries, WEEE, printer/toner cartridges, chemicals, textiles, waste cooking oil, furniture and abandoned bicycles (Appendix 16.2). The Plan complies with all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of the development.

Provided the mitigation measures outlined in Chapter 16 are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, neutral and imperceptible**.

## 17.0 MATERIAL ASSETS

This chapter evaluates the potential impact from the proposed development on Material Assets which are defined in the EPA Guidelines (2017) as “*built services and infrastructure, roads and traffic and waste management*”. The EPA Advice Notes (2015) also gives examples of material assets including assimilative capacity of air and water; ownership and access; and tourism and recreational infrastructure. The European Commission Guidance (2017) refers to several examples of material assets including buildings, other structures, mineral resources and water resources.

The site forms part of a larger block of residential zoned land in the townland of Stapolin, Baldoyle, Dublin 13. The site forms part of a substantial area of undeveloped residential zoned land within Baldoyle-Stapolin. The site is presently rough ground with some development work having been carried out (access roads, drainage, etc) and some areas covered with hard core.

The proposed development site is zoned as ‘*RA – Residential Area*’ in the Development Plan, for which the zoning objective is to “*Provide for new residential communities subject to the provision of the necessary social and physical infrastructure*”.

During construction, contractors will require power for onsite accommodation, and construction equipment/plant. A construction compound and temporary power supply

will be established in consultation with the utility supplier. The power requirements for the construction phase will be relatively minor.

Once in operation, electricity will be provided to the site via the national grid tying in with existing infrastructure in neighbouring areas. New electricity and telecommunications services infrastructure will be put in place to serve the various buildings. This will be carried out in accordance with the requirements of the various service providers, working around the existing live gas infrastructure on the Site.

The proposed Surface Water design has regard to the approved surface water network and wetland per planning permission F16A/0412 that includes capacity for the proposed development at GA2.

It is proposed to connect surface water runoff from the proposed development to a new surface water sewer network within the Baldoyle Stapolin LAP lands. Currently, surface water sewers are present in the roads running through the proposed development, but these have had little use since they were installed in the mid 2000s. In addition, the sewers were laid at a depth that will not allow discharge by gravity above the existing North Fringe Sewer to a wetland within the open space to the north as required by the LAP. Consequently, to comply with the LAP, finished ground levels will have to be raised by up to 1.5m and a new surface water network for the proposed development will have to be installed.

This new network will discharge to a new permitted network to be installed by The Shoreline Partnership for Growth Area 3 (ABP ref. TA06F.311016). This discharges to a new outfall pipe which traverses over the North Fringe Sewer and discharges into a new permitted wetland in the open space area. The wetland discharges to the Mayne River and ultimately to Baldoyle Estuary through a series of flap valves.

Sustainable drainage systems (SuDS) measures will be incorporated into the stormwater drainage network to improve the quality of stormwater leaving the site. SuDS are drainage systems that are environmentally beneficial, causing minimal or no long-term detrimental damage.

These measures will include green roofs, rainwater harvesting, permeable paving, integrated tree pits and bio-retention areas. Petrol interceptors will also be provided in car parking areas. The constructed wetland will feature shallow ponds and marshy areas with a high density of aquatic vegetation. It will detain flows for an extended period, allowing suspended solids to settle out and facilitating treatment of contaminants, before discharging via a weir into the Mayne River floodplain.

Welfare facilities will be provided for the contractors via portable sanitary facilities within the construction compound site during the construction works. It is anticipated that initially, waste will be collected by tanker and disposed of appropriately, and that temporary connections to the existing services will be established to provide service and utilities subject to relevant applications and approvals.

All foul effluent generated at the proposed development site during the operational phase shall be collected in a new foul drainage network for the proposed development designed in accordance with Irish Water Code of Practice for Wastewater Infrastructure.

The proposed water supply network will be designed and installed to the requirements and specifications set out in the Irish Water Code of Practice for Water. Measures are

proposed to minimise water use during the operational phase, including low consumption sanitary fittings, and leak detection systems and rainwater.

There are telecommunication lines in existence for telephone and broadband services in the area.

The works contractor will be obliged to put best practice measures in place and work in accordance with the CEMP. The implementation of mitigation measures within each chapter and detailed in this Chapter will ensure that the predicted impacts on the material assets during the demolition/construction phase will be neutral, imperceptible and short-term.

Likewise the implementation of mitigation measures within each chapter and detailed in Chapter 15 will ensure that the predicted impacts on the material assets during the operational phase will be neutral, imperceptible and long-term.

## **18.0 INTERACTIONS – INTERRELATIONSHIPS BETWEEN THE ASPECTS**

This chapter of the EIA Report addresses potential interactions and inter-relationships between the environmental factors discussed in the preceding chapters. This covers both the construction and operational phase of the proposed development.

The EIA Report chapters have already included and described assessments of potential interactions between aspects however this section of the assessment presents a summary and assessment of the identified interactions. The majority of interactions are neutral.